ORIGINAL

1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
3	BEFORE THE ATOMIC SAFETY AND LICENSING BOARD
4	
5	IN THE MATTER OF: : Docket Nos.
6	CONSOLIDATED EDISON COMPANY OF : 50-247 SP
7	NEW YORK (Indian Point Unit 2) :
8	POWER AUTHORITY OF THE STATE OF : 50-286 SP
9	NEW YORK) Indian Point Unit 3) :
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1	Westchester County Courthouse
2	111 Grove Street
. 3	White Plains, N.Y.
4	March 30, 1983
5	The hearing in the above-entitled
6	matter convened, pursuant to notice, at 9 a.m.
7	BEFORE:
8	JAMES GLEASON, Chairman
9	Administrative Judge
2.0	
2.1	OSCAR H. PARIS
2 2	Administrative Judge
2.3	
2.4	FREDERICK J. SHON
2.5	Administrative Judge

	1	APPEARANCES:
	2	On Behalf of Licensee, Consclidated Edison Company
	3	of New York
	4	BRENT L. BRANDENBURG, ESQ.
	5	Assistant General Counsel
	6	THOMAS L. FARRELLY, ESQ.
	7	Consolidated Edison Company of New York
	8	4 Irving Place
	9	New York, N.Y. 10003
	10	
	11	On Behalf of Licensee, The Power Authority of the
	12	State of New York
)	13	JOSEPH J. LEVIN, ESQ.
	1.4	Morgan Associates, Chartereds
	15	1899 L Street
	16	Washington, D.C. 20036
	17	
	18	DAVID H. PIKUS, ESQ.
	19	RICHARD F. CZAJA, ESQ.
	20	Shea & Gould
	21	
	2.2	
	2 3	

1 On Behalf of the Nuclear Regulatory Commission 2 Staff 3 DONALD HASSELL, ESQ. 4 5 On Behalf of the Federal Emergency Management 5 Agency STEWART GLASS, ESQ. 9 On Behalf of the Intervenors 10 11 Council of the City of New York CRAIG KAPLAN, ESQ. 12 13 14 Friends of the Earth, Inc., and 15 New York City Audubon Society 16 RICHARD HARTZMAN, ESQ. 17 18 New York Public Interest Research Group JOAN HOLT, ESQ. 19 AMANDA POTTERFIELD, ESQ. 20 21 JUDITH KESSLER, ESQ. 22 23 24

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3	WITNESSES	DIRECT	CROSS	REDIRECT	RECROSS	BOAR
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6	RUSSEL DYNES					
7	SIDNEY LECKER					
8	Mr. Pikus	11960		12023		
9	Ms. Posner		11967			
10	Mr. Branden	burg		12037		
11	PHILIP SCHMER					
12	MICHAEL SCALP	I				
13	Mr. Pikus	1207	7			
14	Mr. Brande	nburg	1214	7		
15	Ms. Fleish	er	1215	5		
16	Ms. Posner		12188	8		
17	Mr. Pikus		1220	3		
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1			CONTEN	TS	(Cont'd)
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4.	LIMITED	APPEARANCE	STATEMENT		
5	Michael	Scalpi		Pag	e 12068
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1		CONTENTS (Cont'd)
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10		EXHIBITS
11	NUMBER	IDENTIFIED RECEIVED
1 2	PA-44	January 21, 1983 letter 12068
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- JUDGE GLEASON: Can we proceed,
- 2 please?
- 3 I believe the licensees have
- 4 witnesses to call.
- 5 MR. PIKUS: Judge, the licensees call
- 6 Dr. Russell Dynes and Dr. Sidney Lecker.
- JUDGE GLEASON: All right, gentlemen.
- 8 Will you please come over to the table? If you
- 9 will stand and raise your right hands I will swear
- 10 you in.
- 11 Thereupon,
- DR. RUSSELL DYNES
- 13 SIDNEY LECKER, M.D.
- 14 were sworn by the ADministrative Law Judge and
- 15 testified as follows:
- 16 DIRECT EXAMINATION BY MR. PIKUS:
- 17 Q. Dr. Dynes, do you have before you a
- 18 document entitled Licensees Testimony of Dr.
- 19 Russell Dynes? It contains ten pages of testimony
- 20 and a 16 page annexed resume?
- A. (Witness Dynes) Yes.
- 22 Q. Dr. Dynes, would you please state
- 23 your named for the record?
- A. (Witness Dynes) Russell Dynes, 346
- 25 South College Avenue, Newark, Delaware.

- 1 Q. Dr. Dynes, is the testimony you have
- 2 before you testimony which you wish to submit to
- 3 the Atomic Safety and Licensing Board in this
- 4 proceeding?
- 5 A. (Witness Dynes) Yes, with one minor
- 6 correction. I think at the time of the filing of
- 7 the testimony I was in a different occupation,
- 8 different job, and different city.
- 9 At that time I was Executive Officer
- 10 of the American Sociological Association in
- 11 Washington.
- 12 Currently I am a Professor in charge
- of the Department of Sociology at the University
- 14 of Delaware, in Newark, Delaware.
- 15 Q. Are there any additional changes or
- 16 corrections that you wish to make to your own
- 17 testimony?
- 18 A. (Witness Dynes) I don't believe so.
- 19 Q. And with those changes, Dr. Dynes, is
- 20 the testimony you have before you true and correct
- 21 to the best of your knowledge information and
- 22 belief?
- 23 A. (Witness Dynes) Yes.
- MR. PIKUS: Judge, the licenses at the
- 25 time move the acceptance of the testimony to be

- bound into the record as if read.
- JUDGE GLEASON: Proceed with your
- 3 other witness.
- 4 Q. Dr. Lecker, would you please state
- 5 your name and address for the record?
- A. (Witness Lecker) Yes. Sidney Lecker,
- 7 M.D., 320 East 65th Street, New York New York
- 8 10021.
- 9 Q. Do you have before you at this time a
- 10 document entitled Licensees Testimony of Sidney
- 11 Lecker, M.D., which contains twelve pages of text
- 12 and a four page annexed resume?
- 13 A. (Witness Lecker) Yes, I do.
- 14 O. And is this the testimony that you
- 15 wish to submit to the Atomic Safety and Licensing
- 16 Board in this proceeding?
- 17 A. (Witness Lecker) Yes.
- 18 Q. Are there any additions or
- 19 corrections you wish to make at this time?
- 20 A. (Witness Lecker) No.
- MR. PIKUS: Judge, the licensees
- 22 would respectfully move the testimony of Dr.
- 23 Sidney Lecker into evidence to be bound into the
- 24 record as if read.
- JUDGE GLEASON: Is there an objection

- to the admission of the testimony of the witnesses?
- MS. POTTERFIELD: Yes, there is,
- 3 Judge Gleason.
- 4 Ordinarily, as you know, the
- 5 intervenors' position has been to encourage the
- 6 Board to admit as much evidence as possible, since
- 7 it is an investigation.
- 8 However, in light of the Board's
- 9 rulings on our witnesses, that it was immaterial
- 10 what individual people living within the emergency
- 11 planning zone would do in the event of a
- 12 radiological accident at Indian Point, we have to
- 13 object to the testimony of Dr. Dynes and Dr.
- 14 Lecker as being immaterial and not probitive.
- Their testimony purports to inform
- 16 the Board about the probable response of people
- 17 living within the emergency planning zone in the
- 18 event of a radiological emergency.
- Their testimony is much more
- 20 attenuated than the testimony we had since they
- 21 rely on the research that had to do with
- 22 nonradiological emergencies as the basis for their
- 23 conclusion that people will react as they usually
- 24 do in a nonradiological emergency.
- 25 Given the boards's previous rulings

- 1 on intervenor witnesses, it must be concluded that
- 2 their testimony is at least more immaterial and
- 3 less probative than the testimony offered by
- 4 intervenors
- 5 MR. PIKUS: May I be heard on this?
- JUDGE GLEASON: Yes.
- 7 MR. PIKUS: Your Honor, the motions
- 8 to strike various intervenor witnesses were made
- 9 in some instances by the Power Authority. And
- 10 there is a distinction between experts which we
- 11 drew, like Dr. Dynes and Dr. Lecker, who we did
- 12 not move to strike, and lay witnesses who do not
- 13 have the professional training and experience to
- 14 form a conclusary opinion.
- Dr. Lecker and Dr. Dynes are experts
- 16 in the area of human response. Dr. Dynes is
- 17 perhaps the foremost of the authorities in the
- 18 country on emergency response. Dr. Lecker
- 19 similarly has experience in the area. Contrary to
- 20 what Ms. Potterfield has suggested, their
- 21 testimony is at least in part based on their
- 22 studies of human response to past radiological
- 23 incidents.
- Dr. Dynes was the president of the
- 25 task force of the President's Commission on Three

- 1 Mile Island dealing with emergency preparedness.
- 2 Dr. Lecker has also done extensive studies in the
- 3 areas of nuclear power plants.
- These men are very clearly experts,
- 5 and we believe that there is no basis for Ms.
- 6 Potterfield's objection.
- 7 MR. BRANDENBURG: Con Edison would
- 8 just add, Mr. Chairman, that the testimony of such
- 9 experts as Kye Ericson, which the Board did admit
- 10 as exert testimony in behavioral response to
- 11 emergency planning, is certainly in the same
- 12 subject area as the testimony of these witnesses.
- 13 Con Edison believes the motion of the
- 14 UCS NYPIRG to be without merit for this reason
- 15 and the reasons stated by Mr. Pikus.
- 16 (The Board conferred.).
- JUDGE GLEASON: The Board denies the
- 18 objection. These witnesses are proferred as
- 19 experts. The witnesses that were denied, whose
- 20 testimony was denied admission this past week by
- 21 some witnesses by the intervenors, were not
- 22 presented as experts, and there is a clear and
- 23 distinct difference in admitting those witnesses
- 24 to this proceeding, which the Board has recognized
- 25 in its ruling.

1		We, of	course,	always offer	the
2	opportunity	o couns	sel to qu	estion their	expertise,
3	if she wants	to do 1	that. Bar	ring that, t	he motion
4	is denied.				
5		Do you	want to	proceed, Ms.	
6	Potterfield?				
7		MS. POT	TERFIELD	: Ms. Posne	r will
8	question the	witness	ses.		
9		JUDGE (GLEASON:	The testimo	ny of the
10	witnesses wil	ll be ac	dmitted i	nto evidence	and bound
11	into the reco	ord as	if read.		
12		(Bound	testimon	y follows.)	
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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD Before Administrative Judges: Louis J. Carter, Chairman Frederick J. Shon Dr. Oscar H. Paris

) Docket Nos. In the Matter of CONSOLIDATED EDISON COMPANY OF NEW YORK,) 50-247 SP INC. (Indian Point, Unit No. 2) 50-286 SP June 7, 1982 POWER AUTHORITY OF THE STATE OF NEW YORK (Indian Point, Unit No. 3)

LICENSEES' TESTIMONY OF DR. RUSSELL DYNES

ATTORNEYS FILING THIS DOCUMENT:

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Charles Morgan, Jr. Brent L. Brandenburg
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TESTIMONY

I. INTRODUCTION

Purpose of Testimony

My name is Russell R. Dynes. This testimony has been prepared in response to Commission Questions 3 and 4 and relates to the Board contentions thereunder. The purpose of this testimony is to establish that the human response to various emergencies shows consistency across different types of disaster agents, including radiological ones. Thus, one can anticipate the range of actions likely to occur in various emergencies, regardless of the unique characteristics of the originating agent.

Given this, it can be appropriately concluded that in all types of emergencies, there will be a behavioral capability that will permit corrective and preventative actions which will minimize consequences. Past experience also suggests the high probability of appropriate responses on the part of those charged with emergency responsibility.

Personal Qualifications

I am the current Executive Officer of the American

Bachelor of Arts degree in Sociology/Psychology in 1948, and a Master of Arts degree in Sociology in 1950, both from The University of Tennessee. In 1954, I received a Ph.D. degree in Sociology from The Ohio State University. I taught at the university level virtually constantly from 1948 through 1977. In 1964, I became the Co-Director of the Disaster Research Center at The Ohio State University. I held that position until 1977. I also served as the Chair of the Department of Sociology at The Ohio State University, from 1974 through 1977, when I accepted my current position at the American Sociological Association. I am a member of the American Academy of Political and Social Sciences, the North Central Sociological Association, and the International Sociological Association.

I have lectured and published extensively in a wide range of fields of sociology, with a special emphasis on emergency planning and preparedness. I sat as a member of the Advisory Committee on Emergency Housing of the National Academy of Sciences/National Research Council in 1972, and chaired that organization's Committee on International Disaster Assistance from 1976 to 1979; I acted as a consultant to the Federal Disaster Assistance Administration of the Department of Housing and Urban Development, and served as a senior consultant on the

about actual problems and possible solutions. The planner must convey to those likely to become involved in implementing the plan what can be generally expected and what roles they will play. Too often, planning is seen only in the narrow sense of completing written plans. It is more useful to think of planning in the broader sense of educating prospective emergency response personnel about anticipated events and problems, and the most efficient and effective responses in an emergency. Exercises, drills, and publicity are among the most effective means of accomplishing such objectives.

C. Planning should focus on principles, not details. In developing written plans, there is a tendency to elaborate them with specific details. Emergency plans should focus on principles, not concrete details. This does not necessarily mean that such plans should not be lengthy. Rather, it means that planning should focus on creating an organizational framework, and not become enmeshed in such details as emergency worker compensation or identification of all emergency workers down to the operational level. There are several reasons for this. First, it is impossible to anticipate everything. Second, situations are constantly changing and specifics quickly become outdated. Third, too many details leave the impression that everything is of equal value, when clearly that

is not the case. While emergency planning cannot totally ignore details, particularly at the organizational level, it always should focus on general principles and in that sense the aim should be to produce simple, rather than complex, written plans.

- problematical situation. While in some instances planning is oriented to prevention, most planning is oriented toward altering or modifying what will happen. Plans can indicate the range of problems that might occur and possible solutions to them. Thus, planning reduces the uncertainty of emergencies; it does not prevent them from happening. It is unwise to assume that everything can be anticipated or that all of the unknown can be accurately predicted.
- happen, not on the worst scenario. Often, the initial inclination is to premise planning on the worst possible case; the human imagination is scarcely limited in developing such worst cases. However, it is best to plan for likely cases. It is thus better to plan for an evacuation suitable to a likely scenario than to plan a massive evacuation based on an unlikely scenario. In the case of radiological emergency planning, for example, it would be counterproductive to plan for a scenario

combining a low probabilty plant accident with a severe blizzard on a day when all local police chiefs are out-of-town at a convention. Sound plans for likely cases serve as the basis for actions on a larger scale, if necessary.

F. Planning aims at evoking appropriate actions. Sometimes, planning is seen as primarily a mechanism of expediting response to an emergency. That can be an end result. A major objective of planning, however, is appropriateness of response rather than speed of response. As an example, it is generally more important to obtain valid information as to what has happened than to take immediate action. Reacting to the immediate situation is rarely the most effective and efficient response. Thus, one objective of planning should be to delay impulsive reactions as well as to evoke appropriate actions.

Planning for emergencies should thus be based on certain general principles, rather than focused on specific details. Planning should focus on anticipating how community resources, both material and human, can be utilized most effectively in responding to a likely situation in the future. Such resources already exist in the community and cannot be created by some future demand. Thus, planning must be based on the idea of anticipating the ways in which existing resources can be mobilized to confront "old problems" in a new form during an emergency.

such conflicts exist. Emergency personnel generally perform their tasks because they know that their fellow emergency workers will care for their families. If need develops for additional personnel, volunteers can provide supplemental assistance. In fact, the major problem in most emergencies is too much manpower, since others in the community are generally "released" of other non-critical responsibilities. Too, "victims" are always a source of emergency assistance, if needed. Such persons do not wait to have something done for them by others, but are actively seeking solutions for themselves and others.

In addition to those involved actively in providing emergency services, research suggests that the "public" seeks out appropriate ways of maintaining safety and avoiding danger. They actively seek out information and guidance as to appropriate behavior. They do this by seeking both informal and formal channels of advice as to appropriate actions in the context of the emergency. Even those responses which require considerable energy and effort can be accomplished without major difficulties. For example, after a train derailment in Mississauga, Ontario created a chlorine gas threat, 220,000 people were evacuated successfully from the area in a 24-hour period. Even with confusing guidance from authorities, 144,000 persons evacuated the area around Three Mile Island over the course of a week. During the first evacuation of London in September 1939,

approximately 1,500,000 were evacuated from the central city.

A study by the Environmental Protection Agency which examined

U.S. evacuations from 1960 to 1973 concluded that, each year,

there are an average of 40 evacuations, involving 85,000 persons.

Over the entire time period, 1,142,000 persons were evacuated,

and the study concluded that associated with these evacuations

there were 10 deaths, including seven in one helicopter accident.

The study concluded the risks associated with evacuation were

less than those associated with automobile accidents.

While evacuation is only one of the responses which can reduce danger in emergencies, it is used here as an example to suggest that, as one element in an overall emergency plan, previous evidence shows that massive evacuations can be accomplished. More generally, if plans have developed ways of dealing with an emergency to mobilize the community for action and to provide guidance for appropriate action, such planning leads to compliance. In addition, populations are seldom completely dependent on "official" plans since people are "problem solving" and can make necessary adjustments within an overall plan framework. Research shows also that in such a time period, people are helpful, not selfish, in providing assistance to others. There are few opportunities these days in which we can provide personal assistance to others, since most assistance is now bureaucratic and impersonal. Community emergencies offer

one of the few opportunities to take actions which have a direct bearing on our own safety and the safety of others.

IV. CONCLUSION

Emergency planning is predicated on the notion of mobilizing community resources to meet uncommon threats within a community. Planning is most useful when it is directed to a range of hazards, rather than being directed to a specific type. While various agents which can create emergencies differ, the nature of the problems and the mechanisms of community mobilization are similar across a variety of hazards. In addition, the responses desired in different types of emergencies show identities and similarities. Empirical evidence suggests that responses to radiological agents follow similar patterns to those involving other non-radiological agents. Thus, the assumptions underlying planning for radiological emergencies and the behavior to be anticipated can be informed by the research evidence which has been accumulated in situations involving other, non-radiological emergencies.

Research Experience (continued):

- Co-Principal Investigator, "Cross Cultural Studies of Disaster," Mershon Social Science Foundation, 1968-71.
- Co-Principal Investigator, "Organizational Response to Major Community Crises," National Institute of Mental Health, 1968-74.
- Co-Principal Investigator, "Organizational Functioning in Disaster," Office of Civil Defense, Department of Defense, 1963-77.
- Co-Principal Investigator, "Police Behavior in a College Riot," Law Enforcement Assistance Administration, 1970-71.
- Co-Principal Investigator, "Delivery of Mental Health Services in the Xenia Disaster," State of Ohio Department of Mental Health and Mental Retardation, 1974-75.
- Co-Principal Investigator, "Organizational Communication and Decision Making in Disaster," Advanced Projects Research Agency, 1974-75.
- Co-Principal Investigator, "Delivery of Emergency Medical Services in Disaster," Bureau of Health Services Research, Health Resources Administration, National Institutes of Health, Department of Health, Education, and Welfare, 1975-77.
- Co-Principal Investigator, "Delivery of Mental Health Services in Disaster," National Institute of Mental Health, 1976-79.
- Co-Principal Investigator, "Development of Baseline Information of Mental Health Disaster Assistance/Crises Intervention Needs and Resources," National Institute of Mental Health, 1976-77.
- Principal Investigator, Various Projects related to the Activities of the American Sociological Association, NSF, NIE, FIPSE, Lilly, 1977-

Conference and Workshop Participation:

- Participant, Conference on Social Theory, Emory University, 1956.
- Participant, Seminar on "Interpretations of Religion in Sociological Theory," University of North Carolina, 1959.
- Delegate, International Consultation on the Sociology of Religion, Georgetown University, September, 1962.
- Participant, Workshop on Crisis Research, Sponsored by the University of Pittsburgh and the System Development Corporation, Newport Beach, California, December, 1966.
- Participant, Workshop on Sociological Aspects of Water Resources Research, Utah State University, May, 1968.
- Participant, Caribbean Regional Seminar on Pre-Disaster Preparedness, Port-of-Spain, Trinidad, June, 1968.
- Participant, Illeme Seminaire Sur La Planification Des Secours En Cas De Catastrophes Naturelles, Port-au-Prince, Haiti, June, 1970.
- Faculty Member, Institute of Comparative Sociology, Seminar on Political Violence, University of Illinois, Urbana, Illinois, July, 1970.
- Participant, "Methodological Issues in Comparative Research,"
 Institute of Comparative Sociology, Indiana University, Bloomington,
 Indiana, April, 1971.
- Principal Lecturer, Seminar on the Sociological Aspects of Collective Stress, Sponsored by Patna University, A. N. Sinha Institute and the U. S. Educational Foundation in India, Patna. Bihar, India, March, 1972.
- Participant, Seminar on Organizational and Community Responses to Disasters, Sponsored by National Science Foundation and Japan Society for Promotion of Science, Columbus, Ohio, September, 1972.
- Participant, NIMH Continuing Education Seminar in Emergency Mental Health Services, Washington, DC, June 22-24, 1973.
- Participant, Invitational Conference, "The Assessment of Social Impacts of Oil Spills," The Institute on Man and Science, Rensselaerville, New York, September 25-28, 1973.
- Participant, International Conference of Disaster Researchers, Sponsored by the Centre d'Etudes Psychosociologique des Sinistres et de leur Prevention, Paris, France, September 5-6, 1974.
- Participant, Consultant, "Interorganizational and Interagency Relations in Major Disasters," National Emergency Planning Establishment, Government of Canada, Arnprior, Ontario, October 22-24, 1974.

Publications:

Books:

- Social Problems: Dissensus and Deviation in an Industrial Society. New York: Oxford University Press. 594 pp. (Co-author).
- 1969 Deviance: Studies in the Process of Stigmatization and Societal Reaction. New York: Oxford University Press. (Co-author).
- 1970 Organized Behavior in Disaster. Lexington: D. C. Heath. 236 pp. (Republished 1976).
- 1975 Social Movements, Violence and Change: The May Movement in Curacao. Columbus: The Ohio State University Press. (Co-author).
- 1975 Deviance: Definition, Management and Treatment. New York: Oxford University Press. (Co-author).
- 1982 Sociology in Applied Settings, (tentative title) (Howard Freeman, Russell R. Dynes, Peter Rossi, William Foote Whyte, eds.)

Chapters, Monographs, and Reports:

- 1. 1951 Homes for the Homeless in Tennessee. Knoxville: The University of Tennessee. Publication of the Bureau of Sociological Research, The University of Tennessee Record Extension Series, Volume 27, No. 4, 67 pp. (with William E. Cole).
- 2. 1954 "The Urban Class System" and "The Urban Religions."

 Pp. 115-141 and 191-209 in William E. Cole (ed.), Dynamic
 Urban Sociology. Harrisburg: Stackpole Press.
- 3. 1955 Mobile Industrial Workers and the Church: A Study of People on the Move in Ohio's Atomic Area. National Council of Churches, Division of Home Missions. 31 pp.
- 4. 1956 Consequences of Population Mobility for School and
 Community Change. Columbus: School-Community Development
 Study, The Ohio State University. 132 pp.
- 5. 1957 Social Factors Related to Adaptability of Air Force Pilot Trainees. Columbus: Research Foundation, The Ohio State University. 176 pp. (with Alfred Clarke and John Cuber).
- 6. 1959 "The Relation of Community Characteristics to Religious Organization and Behavior." Pp. 253-268 in Marvin Sussman (ed.), Community Structure and Analysis. New York:
 Thomas Y. Crowell Co.

Chapters, Monographs, and Reports (continued):

- 7. 1960 "The Inner City Church." Pp. 15-18 in John Lane Williams (ed.), Our Mission to the City. Report of Methodist Inner City Conference.
- 8. 1964 "Some Preliminary Observations in Organizational Responses in the Emergency Period after the Niigata, Japan Earthquake of June 16, 1964." Research Report #11, Disaster Research Center, 49 pp. (with J. E. Haas and E. L. Quarantelli). (Republished in entirety in Japanese by Japanese Government).
- 9. 1964 "Some Preliminary Observations of the Response of Community Organizations Involved in the Emergency Period of the Alaskan Earthquake." Working Paper #2, Disaster Research Center, 28 pp. (with J. E. Haas and E. L. Quarantelli).
- 10. 1966 Observations on Social Change. Sirs-el-layyan, UAR: Arab States Center for Education for Community Development. 44 pp. (in English and Arabic).
- 11. 1967 Acceptance of Change, Part I. Sirs-el-layyan, UAR: Arab States Center for Education for Community Development. 29 pp. (with Louis K. Meleika).
- 12. 1968 The Functioning of Established Organizations in Community

 Disasters. Report Series No. 1. Columbus: Disaster

 Research Center. 52 pp. (with George Warheit).
- 13. 1968 "Operational Problems of Organizations in Disasters."

 Pp. 151-176 in 1967 Emergency Operations Symposium.

 Santa Monica: System Development Corporation.
- 14. 1969 Community Priorities in the Anchorage, Alaska Earthquake, 1964. Monograph Series No. 4. Columbus: Disaster Research Center. 173 pp. (with Daniel Yutzy, major author, and William Anderson).
- 15. 1969 The Functioning of Expanding Organizations in Community

 Disasters. Report Series No. 2. Columbus: Disaster

 Research Center. 82 pp.
- 16. 1969 Organized Behavior in Disaster: Analysis and Conceptualization. Columbus: Disaster Research Center. 254 pp.

 (Republished 1970. Lexington: D. C. Heath).
- 17. 1970 "Different Types of Organizations in Disaster Response and Their Operational Problems." In Robert Brictson (ed.), Emergency Operations. Los Angeles: Tinnon-Brown. (with E. L. Quarantelli).

Chapters, Monographs, and Reports (continued):

- 18. 1970 Disruption on the Campuses of Ohio College and Universities,

 Spring, 1970. Report prepared for the Ohio Council of
 Churches and Ohio Board United Ministries in Higher Education.

 119 pp. (with E. L. Quarantelli). (Several sections of this have been reprinted elsewhere.)
- 19. 1971 "Community Conflict: An Explanation of Its Absence in Natural Disaster." Pp. 220-204 in Clagett G. Smith (ed.), Conflict Resolution: Contributions of the Behavioral Sciences. Notre Dame: University of Notre Dame Press. (with E. L. Quarantelli).
- 20. 1971 Environment Crises. Columbus: Water Resources Center, The Jan. Ohio State University. 91 pp. (with Dennis Wenger).
- 21. 1971 A Model of Community Problem Solving and Selected Empirical Dec. Applications. Columbus: Water Resources Center, The Ohio State University. 153 pp. (with Dennis Wenger).
- 22. 1972 "Cross Cultural Perspective on Disaster." Pp. 235-257 in Proceedings of the Japan-United States Disaster Research
 Seminar: Organizational and Community Responses to Disaster.
 Columbus: Disaster Research Center.
- 23. 1972 A Perspective on Disaster Planning. Report Series No. 11.

 Columbus: Disaster Research Center. 94 pp. (with E. L.

 Quarantelli and Gary Kreps).
- 24. 1972 "Police Department Planning for Civil Disturbances: Organizational Factors involved in Changes." Pp. 76-88 in

 F. Adler and G. O. W. Mueller (eds.), Politics, Crime and the International Scene: An Inter-American Focus. Hato Rey, PR: North South Press. (with M. Brooks and E. L. Quarantelli).
- 25. 1972 Police Perspectives and Behavior in a Campus Disturbance.

 May Columbus: Disaster Research Center. 166 pp. (with E. L. Quarantelli and James L. Ross).
- 26. 1974 "Organizations as Victims in American Mass Racial Disturbances:
 A Reexamination." Pp. 121-142 in E. C. Vivano and Israel
 Drapkin (eds.), Victimology. Volume 4. Lexington: D. C.
 Heath. (with E. L. Quarantelli).
- 27. 1974 "Police Perspectives and Behavior in a Campus Disturbance."

 In Donal MacNamara and Marc Riedel (eds.), Police: Perspectives,

 Problems and Prospectives. New York: Praeger. (with

 E. L. Quarantelli and James L. Ross).

Chapters, Monographs, and Reports (continued):

- 38. 1979 Report of the Emergency Preparedness and Response Task Force,
 Staff Report to the President's Commission on the Accident
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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD
Before Administrative Judges:
Louis J. Carter, Chairman
Frederick J. Shon
Dr. Oscar H. Paris

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In the Matter of)	Docket	Nos.	,
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. (Indian Point, Unit No. 2))	50-247 50-286		
POWER AUTHORITY OF THE STATE OF NEW YORK (Indian Point, Unit No. 3))	June 7	, 1982	
	-x			

SIDNEY LECKER, M.D.

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III.	HUMAN RESPONSE TO RADIOLOGICAL EMERGENCIES	6
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TESTIMONY

I. INTRODUCTION

Purpose of Testimony

My name is Sidney Lecker, M.D. I am a board certified practicing psychiatrist with my office at 320 East 65th Street, New York, New York. This testimony addresses Commission Questions 3 and 4 herein and relates to Board Contentions 3.2, 3.3, 3.7, 4.4, 4.5, and 4.7. The purpose of my testimony is to demonstrate:

- (A) that human response to radiological emergencies does not differ materially from response to nonradiological emergencies;
- (B) that psychological and behavioral assumptions underlying radiological emergency planning are valid; and
- (C) that the sociological conclusions of Dr. Russell

 Dynes regarding human response to radiological

 emergencies are supported by well-established

 psychological principles.

Personal and Professional Qualifications

A. General qualifications.

A copy of my resume is annexed hereto. While as my resume indicates, I have been involved in scholarship and practice in several areas of psychiatry, I am principally a child psychiatrist and have extensive experience in the area of human stress.

My experience spans a wide range, including teaching, public interest work, private practice, and consulting for corporations. I have devoted considerable time to public service work, both inside and outside of government. From 1972 to 1974, I was the State of New York's chief child psychiatrist and children's service administrator, holding the position of Assistant Commissioner for Children's Service, New York State Department of Mental Hygiene.

For the past several years, I have been principally engaged in writing, research, and private practice. During this period, I have also performed volunteer public interest consulting services for the Legal Aid Society and others, on behalf of the mentally retarded residents of the Willowbrook State School in Staten Island.

B. Experience in radiological matters.

I am among a very small group of professionals with any substantial experience in the area of human response to radiological emergencies. I became interested in this area of study several years ago in connection with my work on human stress. Because of my experience and reputation in this new field, I have had extensive contact with government officials, utility executives and plant workers, public interest groups, and the communities in areas surrounding nuclear power plants, including Three Mile Island in Pennsylvania and Diablo Canyon in California. Among the observation and consulting I have done has been my work connected with the Three Mile Island accident.

II. GENERAL ASPECTS OF BEHAVIORAL RESPONSE

Human response to an emergency does not depend on the type of emergency involved. Rather, human beings respond psychologically to the stress caused by the emergency, not to the emergency itself. Hence, there are predictable human responses common to any emergency, whether it be a flood, robbery, or radiological accident.

Stress is caused by any type of change in a person's life or environment. As noted above, there are predictable human reactions to stress.

A. Adults generally react to stress by responding obediently to leaders and sources of authority, and instructions, particularly in the event of an emergency.

As a general principle, people under stressful situations require and seek leadership. Particularly in the initial phases of a reaction to disaster, they become responsive to authority and idealize leadership. Studies also show that the presence of bystanders who define the situation as one in which people need help encourages pro-social behavior. The combination of strong leadership, a plan of action, and useful participation in creating a solution reduces individual stress. Experimental studies in the Tavistock Human Relations literature confirm that when groups are put under stress in circumstances in which no leadership or structure is provided, the group will quickly evolve a pattern of spontaneous leadership and followership in which the followers will receptively respond to the directions of those assuming the roles of leader, or to an established plan of action. Of course, the response is usually even more positive where there is an established leader to whom people can look to assume control.

B. Children generally react to stressful situations by (a) looking to adults who show leadership; and/or (b) productive use of optimistic anticipation.

Children generally react better than adults to

stressful situations. This occurs for one or both of two reasons.

First, much as adults look to leaders in time of emergency, children look to adults. Children look to adults (who often are, but need not be, their parents) with absolute optimism and confidence that the adults are capable of implementing an effective response. Knowing that children are dependent upon them, adults are further encouraged to follow appropriate instructions and carry out their responsibilities.

Children also, unlike adults, productively use optimistic anticipation to deal with the stress of an emergency.

Because of their inability to execute a solution themselves, children use their creative imagination to anticipate a pleasant solution to a crisis. Based upon my years of experience and research as a child psychiatrist and my Three Mile Island work, I have no doubt that these principles would apply in the event of a radiological emergency at Indian Point or elsewhere.

Again, such reactions would occur regardless of the nature of the emergency, since they are responses to stress - not to the particular type of emergency.

Studies of stress conditions during non-radiological evacuations have demonstrated that responses to stress during

evacuations are generally consistent with the principles set forth in this section.

III. HUMAN RESPONSE TO RADIOLOGICAL EMERGENCIES

Human response to radiological emergencies does not differ materially from response to non-radiological emergencies. My conclusion is based not only on my testimony above, but on my work and research in connection with Three Mile Island and other radiological matters.

I strongly disagree with each of the contentions in this proceeding which suggest that human response to radio-logical emergencies is somehow distinguishable. Such contentions are unsupported by psychological theory or empirical evidence. The contentions appear to contain three principal attacks on the asssumptions underlying radiological emergency planning: (1) that emergency workers cannot be depended upon to perform their tasks; (2) that the public will panic and not follow emergency instructions; and (3) that radiological hazards can be distinguished because of their "invisible" character. None of these arguments, however, has any merit.

Emergency Workers Can be Expected To Perform Their Tasks

Emergency personnel and others with defined roles

can be expected to fulfill their roles in a radiological emergency. This is true for the traditional emergency workers such as police and fire fighters, as well as other persons with roles in a radiological emergency response such as teachers and bus drivers.

A. Traditional emergency workers.

Little need be said about the responsiveness of traditional emergency workers such as police and fire fighters. These personnel have chosen their professions because they seek, rather than fear, crisis mastery. They know that their jobs may at times be unpleasant and involve risks, yet they willingly accept such tasks because of their desire to aid the public and play a useful and much-appreciated role. Just as a fireman will not hesitate to rush into a burning building to save a life, so too can emergency workers be expected to enter the zone requiring evacuation in a radiological emergency. The experience during the Three Mile Island accident certainly bears this out.

Indeed, an interesting finding during the Three Mile Island accident was that off-duty plant personnel entered the area to offer their help, rather than remaining outside or departing the area. They too, it seems, preferred the security of their designated roles more than they sought to put distance between themselves and the plant.

B. Other emergency workers.

Personnel with defined roles in an emergency plan can be expected to perform such roles in a radiological emergency. This applies to non-traditional emergency workers such as bus drivers, as well as traditional emergency personnel.

During an emergency, increased pressure falls upon personnel of all types to conform with pro-social behavioral patterns. This well-known principle stems from two factors.

First, having a defined role makes one feel potent and useful as opposed to being in a state of helplessness that might otherwise occur in the emergency. Second, the fact that this is a "public" emergency and one's behavior is known to others has been found to enhance pro-social responses.

Thus, a bus driver who knows that many others are dependent upon him for emergency aid is likely to perform his assigned task with alacrity. Similarly, a school teacher charged with the custody of his school children can be expected to follow instructions for care of those children. My observations at Three Mile Island indicate that the teachers there did exactly that. There was no evidence of any staff or teacher panic, but only evidence of teachers remaining at their posts and an orderly evacuation.

For these reasons, I have little doubt about the reliability of personnel assigned tasks under the emergency plan

The Public Will Not Panic and Wil Follow Instructions

As I stated earlier, people have very predictable reaction is a greater level of dependency on order and authority.

Recause of this desire for order, instruction and leadership, the public would turn to whatever sources existed during a radiological emergency to relieve their stress. In a case of Indian Point, as much as certain individuals may normally criticize the Governor, their County Executive, the interest is anning brochure or the emergency plans, they would see a such sources of order and instruction to fulfill their yer located needs in an emergency.

some form of order exists, such as the emergence of a leader or the sence of an emergency plan. Moreover, as Dr. Dynes has sorrectly pointed out, even in the absence of such leadership, there is no historical evidence of panic during any of the many mass evapuations which have taken place. There is a well-tablished psychological principle underlying this result,

known as "isolation of affect." People accept the reality of an emergency without drastic emotion, instead withholding "payment of their emotional dues" until safety has been achieved. A common example is the exhaustion felt after a stressful encounter.

Panic is avoided because panic is an emotional reaction. The human body responds physically and psychologically to an emergency by deferring emotional release until the perceived danger has subsided.

An important point regarding both the public and emergency workers is that their own predictions as to how they would respond to a radiological emergency are of limited value. I assign little credence to predictions that bus drivers will not show up or people will ignore the plan, even when such predictions are made by the individuals themselves.

Once an emergency sequence begins, the human mind and body mobilize, and an entirely new attitude emerges. Even the most ardent critics of an evacuation plan can be expected to follow that plan, if for no other reason than because it exists. Put another way, if the emergency plan is the established blue-print for response to an emergency, people will turn to it when the emergency occurs.

It is nearly impossible, without rigorous simulation such as aircraft pilot training, to forecast an aberrant response by an individual to an emergency in the absence of such an emergency. On the other hand, empirical post-emergency evidence and the mainstream of psychological scholarship show repeatedly that the public and emergency workers have reacted in an orderly, obedient manner, and have not panicked.

Thus, the level of confidence people presently have in the emergency plan has no bearing on their reaction during an actual emergency.

The "Invisibility" of the Threat Does Not Enhance Fear or Create Panic

The principal distinction apparently raised by the intervenors between radiological and non-radiological emergencies is that radiation cannot be detected by the human senses. Again, I have never seen a shred of empirical evidence in support of this distinction.

If anything, the fact that the threat is imperceptible should reduce fear, rather than enhance it. As an example well known to psychiatrists, a surgical patient is far less afraid of prolonged anesthesia than he is of the surgeon's knife, despite the fact that the anesthesia is much more dangerous. But the more visible threat, the knife, is the greater fear producer.

I find it simply incredible -- as a matter of psychology of even common sense to assert that a findlighter would be more afraid to enter a potentially contaminant area with a dosimeter than he would be to enter a blading building in danger of imminent collapse.

THE CONCLUSION

response to rediclogical emergencies would not differ interially from response to non-radiological emergencies. In the human response assumptions under the radiological estimate planning armive

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SCIENTIFIC PUBLICATIONS:

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The Canadian Psychiatric Association Journal, Vol. 16, 1971.

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- LECKER, S., The Natural Way to Stress Control, (Book), Grosset & Dunlap, 1978
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- LECKER, S., Who Are You (Book) Simon and Schuster, May, 1980
- LECKER, S., Family Ties (Book) Wyden Books, December, 1980
- PAPERS
- 1964- Quebec Society of Crimonology "Criminal Acting-Out as Part of a Depressive State". (Multiple co-authors junior author).
- 1965- Fifth International Criminological Congress "The Role of Guilt and Shame in the Genesis of Criminal Behavior."
- 1975- Paper, 31st International Congress on Alcoholism and Drug Dependence, Bangkok, Thailand, February, 1975-"Family Factors, Interpersonal Competence and Drug Addiction".
- 1975- Paper, National Drug Abuse Conference, New Orleans, Louisiana, April, 1975: "Therapeutic Community: A Generation Later".

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1976- Therapeutic Communities of America, Washington, D.C.
"Sexual Problems in the T.C."

you- Yale University, Department of Lhild GUEST LEL .. Study Center - "The Development GIVEN: d-Centered Community Psychiatry Program." 1969- Allan Memorial Institute - "Community Psychiatry in a Middle Class Suburb." 1970- Allan Memorial Institute - "An Indigenous Clinic for Youth in Montreal." 1970- University of Sherbrooke Medical School - "An Indigenous Clinic for Youth in Montreal." 1971- University of Southern California, School of Medicine. "Changes in the Youth Culture, The Doctor's Role." 1971 - New Haven County Medical Association, "A Clinical Pathological Conference on Quebec Medicine." 1971- Montreal Medical-Chirugical Society, "Youth, Our Medical Pariahs." 1971- Litchfield County Medical Association, "Can and Should a Health Care Scheme Be Socially Efficient." 1972 - University of Southern California and California Regional Medical Programs, Area V, "Where It's At." 1972- Middlesex County Medical Association, "Health Care Dilemmas and Physician Responsibility." 1974- Lecture at Good Samaritan Hospital, "Child Abuse and Family Problems." 1978- Technical Association of the Pulp and Paper Industry - "Stress in the Corporate Setting." (Chicago) 1978- University of California Santa Cruz-"Stress Control in Organizations." (Monterey) 1978- Autogenic Systems Seminar for Health Professionals -"Stress Control in Organization." (San Francisco) 1978- Foundation for Accounting Education -"Stresses of Corporate Life." (Cherry Hill) New York County Medical Society, Committee on Industrial COMMITTEES Medicine Industrial Psychiatry Group

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Editor, Walley Sociologist, 1958-63. Editor, Newsletter, Ohio Council of Family Relations, 1950 84. Editor, Special Issue, "On the Sociology of Religion," Sociological Focus, Volume 2, No. 1, 1968. (also Editor's Introduction, pp. 1-2). Editor, Consultant on social problems concepts, Dictionary of Modern Sociology, Littlefield, Adams and Co., 1969, Thomas F. Hoult, ed. Co-Editor, Special Issue, "Organizational and Group Responses to Community Disaster," American Behavioral Scientist, Volume 13, No. 3 (January-February), 1970. Co-Editor, Special Issue, "Dynamics of Organizational Involvement and Change in Civil Disturbances," American Behavioral Scientist, Volume 16, No. 3 (January-February), 1973. Associate Editor, Review of Religious Research, 1968-77. Co-Editor, Disaster Research Center Series. Reviewer for a number of journals raning from Journal of Scientific Study of Religion to Science.

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD Before Administrative Judges: Louis J. Carter, Chairman Frederick J. Shon Dr. Oscar H. Paris

) Docket Nos., In the Matter of CONSOLIDATED EDISON COMPANY OF NEW YORK,) 50-247 SP 50-286 SP INC. (Indian Point, Unit No. 2) POWER AUTHORITY OF THE STATE OF NEW YORK June 7, 1982 (Indian Point, Unit No. 3)

> LICENSEES' TESTIMONY OF SIDNEY LECKER, M.D.

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TESTIMONY

I. INTRODUCTION

Purpose of Testimony

My name is Sidney Lecker, M.D. I am a board certified practicing psychiatrist with my office at 320 East 65th Street, New York, New York. This testimony addresses Commission Questions 3 and 4 herein and relates to Board Contentions 3.2, 3.3, 3.7, 4.4, 4.5, and 4.7. The purpose of my testimony is to demonstrate:

- (A) that human response to radiological emergencies does not differ materially from response to nonradiological emergencies;
- (B) that psychological and behavioral assumptions underlying radiological emergency planning are valid; and
- (C) that the sociological conclusions of Dr. Russell Dynes regarding human response to radiological emergencies are supported by well-established psychological principles.

Personal and Professional Qualifications

A. General qualifications.

A copy of my resume is annexed hereto. While as my resume indicates, I have been involved in scholarship and practice in several areas of psychiatry, I am principally a child psychiatrist and have extensive experience in the area of human stress.

My experience spans a wide range, including teaching, public interest work, private practice, and consulting for corporations. I have devoted considerable time to public service work, both inside and outside of government. From 1972 to 1974, I was the State of New York's chief child psychiatrist and children's service administrator, holding the position of Assistant Commissioner for Children's Service, New York State Department of Mental Hygiene.

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I am among a very small group of professionals with any substantial experience in the area of human response to radiological emergencies. I became interested in this area of study several years ago in connection with my work on human stress. Because of my experience and reputation in this new field, I have had extensive contact with government officials, utility executives and plant workers, public interest groups, and the communities in areas surrounding nuclear power plants, including Three Mile Island in Pennsylvania and Diablo Canyon in California. Among the observation and consulting I have done has been my work connected with the Three Mile Island accident.

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Stress is caused by any type of change in a person's life or environment. As noted above, there are predictable human reactions to stress.

A. Adults generally react to stress by responding obediently to leaders and sources of authority, and instructions, particularly in the event of an emergency.

As a general principle, people under stressful situations require and seek leadership. Particularly in the initial phases of a reaction to disaster, they become responsive to authority and idealize leadership. Studies also show that the presence of bystanders who define the situation as one in which people need help encourages pro-social behavior. The combination of strong leadership, a plan of action, and useful participation in creating a solution reduces individual stress. Experimental studies in the Tavistock Human Relations literature confirm that when groups are put under stress in circumstances in which no leadership or structure is provided, the group will quickly evolve a pattern of spontaneous leadership and followership in which the followers will receptively respond to the directions of those assuming the roles of leader, or to an established plan of action. Of course, the response is usually even more positive where there is an established leader to whom people can look to assume control.

B. Children generally react to stressful situations by (a) looking to adults who show leadership; and/or (b) productive use of optimistic anticipation.

Children generally react better than adults to

stressful situations. This occurs for one or both of two reasons.

First, much as adults look to leaders in time of emergency, children look to adults. Children look to adults (who often are, but need not be, their parents) with absolute optimism and confidence that the adults are capable of implementing an effective response. Knowing that children are dependent upon them, adults are further encouraged to follow appropriate instructions and carry out their responsibilities.

Children also, unlike adults, productively use optimistic anticipation to deal with the stress of an emergency.

Because of their inability to execute a solution themselves, children use their creative imagination to anticipate a pleasant solution to a crisis. Based upon my years of experience and research as a child psychiatrist and my Three Mile Island work, I have no doubt that these principles would apply in the event of a radiological emergency at Indian Point or elsewhere.

Again, such reactions would occur regardless of the nature of the emergency, since they are responses to stress - not to the particular type of emergency.

Studies of stress conditions during non-radiological evacuations have demonstrated that responses to stress during

evacuations are generally consistent with the principles set forth in this section.

III. HUMAN RESPONSE TO RADIOLOGICAL EMERGENCIES

Human response to radiological emergencies does not differ materially from response to non-radiological emergencies. My conclusion is based not only on my testimony above, but on my work and research in connection with Three Mile Island and other radiological matters.

I strongly disagree with each of the contentions in this proceeding which suggest that human response to radio-logical emergencies is somehow distinguishable. Such contentions are unsupported by psychological theory or empirical evidence. The contentions appear to contain three principal attacks on the asssumptions underlying radiological emergency planning: (1) that emergency workers cannot be depended upon to perform their tasks; (2) that the public will panic and not follow emergency instructions; and (3) that radiological hazards can be distinguished because of their "invisible" character. None of these arguments, however, has any merit.

Emergency Workers Can be Expected To Perform Their Tasks

Emergency personnel and others with defined roles

- 1 CROSS EXAMINATION BY MS. POSNER.
- 2 Q. Doctors Dynes and Lecker, my names is
- 3 Pat Posner.
- Dr. Dynes, are you familiar with the
- 5 documents that have been admitted before this
- 6 tribunal that are known as the Radiological
- 7 Emergency Response Plans for New York State and
- 8 Westchester County, Rockland County, Orange County,
- 9 and Putnam County?
- 10 A. (Witness Dynes) I have had brief
- 11 encounter with them, yes.
- 12 Q. I would like to turn your attention
- 13 to page 4 of your testimony, where you give an
- 14 outline of the principals of emergency planning.
- 15 At the top of page 4 you have some items that a
- 16 planner should pay attention to. The planner must
- 17 pay attention to the actual problems.
- 18 From your briefings on the
- 19 Radiological Emergency Response Plans that were
- 20 submitted for Indian Point, what did your
- 21 evaluation show the actual problems that the
- 22 planners dealt with?
- 23 A. (Witness Dynes) Well, we are
- 24 pulling -- the point that I made in my testimony
- 25 was that sometimes planners get sidetracked on

- 1 false problems, and that that was the intent of
- 2 the particular statement. A number of times in
- 3 emergency planning people get sidetracked in terms
- 4 of what are irrelevant and false problems, rather
- 5 than real problems.
- 6 Q. What were the actual problems that
- 7 were taken into consideration in the Indian Point
- 8 Radiological Emergency Response Plans?
- 9 A. (Witness Dynes) Well, certainly one
- 10 part of that would be an evacuation plan.
- 11 Q. And what were the actual problems in
- 12 the evacuation plan that were dealt with?
- 13 A. (Witness Dynes) Well, if I understand
- 14 you, the general problem is evacuation.
- 15 Q. And what was the possible sclution?
- 16 A. (Witness Dynes) To essentially adopt
- 17 a plan which facilitates evacuation.
- 18 Q. And to what extent and how were the
- 19 problems conveyed to those likely to become
- 20 involved in implementing the plan?
- 21 A. (Witness Dynes) Well, in general, I
- 22 suppose there is a certain amount of information
- 23 provided to the public about the nature of
- 24 evacuation.
- On the other hand, I think that there

- 1 are different levels of planning and information
- 2 necessary. A lot -- the major problem of
- 3 information is essentially at organizational level,
- 4 not necessarily public level.
- 5 It may be at later points there might
- 6 be a particular necessity for greater public
- 7 information.
- 8 Q. Later than what?
- 9 A. (Witness Dynes) Closer to the event
- 10 that you are talking about.
- 11 Q. During an actual emergency, then, you
- 12 would consider that the information that is
- 13 distributed to the public at the time of the
- 14 emergency would be adequate to implement an
- 15 emergency response?
- 16 A. (Witness Dynes) That one part of it,
- 17 yes, the public part of it.
- 18 O. For an evacuation?
- 19 A. (Witness Dynes) Yes.
- 20 Q. Have you reviewed the educational
- 21 materials that have been distributed to the public
- 22 so far?
- 23 A. (Witness Dynes) As I recall, I did
- 24 see a pamphlet and brochure which was put out.
- 25 O. Did you see any of the emergency

- 1 broadcast messages that were prepared for the
- 2 March 9 drill?
- 3 A. (Witness Dynes) Not that I can recall
- 4 at this particular point.
- 5 Q. How, in your opinion, will people
- 6 make an informed judgment about the radiological
- 7 emergency at Indian Point?
- 8 A. (Witness Dynes) Through information
- 9 which is given at that time as to what the
- 10 situation is, and what are the consequences, and
- 11 what are their alternatives for behavior.
- 12 O. On page 5 of your testimony you
- 13 mention the fact that planning is oriented to
- 14 prevention sometimes, but other planning is
- 15 oriented to altering or modifying what will happen?
- 16 A. (Witness Dynes) That's right.
- 17 Q. What is it that we are talking about
- 18 when we are talking about altering or modifying
- 19 what will happen in a radiological emergency?
- 20 A. (Witness Dynes) Well, for example, to
- 21 essentially minimize the danger.
- 22 O. And what is the danger?
- 23 A. (Witness Dynes) Well, essentially
- 24 there might be a danger, a threat to the person or
- 25 property at that time. That's why you build

- 1 evacuation plans.
- 2 Q. Why would we have to have an
- 3 evacuation plan to protect the person's property?
- 4 MR. PIKUS: I am going to object,
- 5 judge, to this question. I think it goes beyond
- 6 the scope of the witness's testimony.
- 7 JUDGE GLEASON: She can go beyond the
- 8 scope in cross examining.
- 9 Go ahead and ask the question.
- 10 Q. The question is what is the danger
- 11 and what is it that we will be modifying in the
- 12 event of a radiological emergency?
- 13 A. (Witness Dynes) Well, essentially you
- 14 are altering the possibilities for effect.
- 15 Q. And what could the effect be?
- 16 A. In the case of essentially an off
- 17 site release there could be dangers to the person.
- 18 That's why we have a plan.
- 19 Q. When you say that the plan reduces
- 20 the uncertainty of emergencies, how does the
- 21 Radiological Emergency Response Plan for Indian
- 22 Point, in fact, reduce the uncertainty of the
- 23 emergency?
- A. (Witness Dynes) Because you have a
- 25 structure of how to deal with the problems when

- 1 they occur.
- 2 Q. I would like to ask you if you are
- 3 familiar with a document called Health Related
- 4 Behavioral Impact from Three Mile Island Nuclear
- 5 Incident, part 2, report submitted to the TMI and
- 6 Department of Health, prepared by Peter S. Kautz,
- 7 PhD, principal investigator?
- 8 A. (Witness Dynes) I am not sure I can
- 9 recall that specific article, but I am, in general,
- 10 familiar with a lot of that literature that has
- 11 come out of that.
- 12 Q. Well, would it be fair to say that
- 13 one of the features of a radiological emergency is
- 14 the fact that the danger cannot be perceived by
- 15 the direct senses of the individuals involved, the
- 16 people at risk?
- 17 A. (Witness Dynes) Well, that's somewhat
- 18 of a characteristic of that.
- 19 There are other agents that are very
- 20 similar. For example, most bacteriological ones,
- 21 that same characteristic applies to it. In fact,
- 22 most threats in the world we don't perceive
- 23 directly, we perceive them through monitoring
- 24 crises.
- 25 Q. But it is a feature of a radiological

- 1 emergency that people cannot detect radiation?
- 2 A. (Witness Dynes) Unless you have
- 3 dosimeters, and most people don't have that. But
- 4 you have resources in the community.
- Q. And it's a fact that the person will
- 6 not know when he has effectively removed himself
- 7 or herself from the danger, absent a monitoring
- 8 device?
- 9 A. (Witness Dynes) Well, that's true in
- 10 other agents, also.
- 11 O. But it is true of a radiological
- 12 emergency?
- A. (Witness Dynes) Yes, and true of other
- 14 agents, also.
- 15 Q. So to the extent that people do not
- 16 have dosimeters or monitoring devices on their
- 17 persons, the planning will not reduce the
- 18 uncertainty of the radiological emergency?
- 19 A. (Witness Dynes) Yes, certainly. You
- 20 can simply ask the people who have the monitoring
- 21 device.
- I don't have a weather forecasting
- 23 system at home. I depend on those who have it.
- 24 Q. So you feel it would be adequate for
- 25 a person who doesn't have a dosimeter to ask

- somebody who does?
- 2 A. (Witness Dynes) Certainly. We depend
- 3 on information from other people.
- 4 Q. Further on on page 5 you talk about
- 5 the difference between planning for a worst
- 6 possible case and planning for a likely scenario.
- 7 What is your opinion of government
- 8 efforts to plan for a nuclear war or a nuclear
- 9 attack on the United States?
- 10 A. (Witness Dynes) I am not sure of the
- 11 connection between the two parts, but in terms of --
- 12 in terms of my opinion over a number of years, I
- 13 think that that illustrates the case of what I was
- 14 trying to point out.
- 15 Someone builds a scenario and then
- 16 tries to plan on the basis of that. And I think
- 17 that people are much better off, or nations are
- 18 much better off, communities are much better off,
- 19 by trying to plan essentially for a realistic
- 20 scenario, or one that is somewhat approachable,
- 21 and base it on that, rather than what might happen
- 22 in a particular instance that would have such low
- 23 probability, you know, that it would happen once
- 24 every two or three thousand years.
- 25 Q. Do you support the government's

- 1 efforts to develop a crisis relocation plan for
- 2 possible attack on American cities?
- 3 A. (Witness Dynes) I think that in the
- 4 case of the possibility of nuclear attack, again,
- 5 evacuation makes some sense, yes. They call it
- 6 crisis relocation.
- 7 Q. So you do think it's sensible to plan
- 8 for the eventuality of a nuclear attack to the
- 9 United States?
- 10 A. (Witness Dynes) I think it's sensible
- 11 to plan for all possible emergencies, including
- 12 wartime situations.
- 13 Q. But you would expect that there would
- 14 be a casualty rate of, for example, more than
- 15 fifty thousand if the United States were attacked?
- 16 A. (Witness Dynes) Depending upon your
- 17 scenario, probably yes.
- 18 Q. So it does make sense in certain
- 19 contexts to plan for a situation which might have
- 20 casualties of up to fifty thousand?
- A. (Witness Dynes) Well, you have
- 22 shifted levels on me. I was talking in this
- 23 context on a community context. Now you have
- 24 shifted to a national level, which is a little bit
- 25 different. I am not sure you want to pursue that.

- 1 Q. I am talking about that it is
- 2 sometimes sensible to base a plan or a scenario
- 3 that could include fifty thousand casualties, or
- 4 certainly more than a hundred casualties, whether
- 5 it's a national planning effort or a local
- 6 planning effort.
- 7 A. (Witness Dynes) Well, I am not really
- 8 sure. If you look at the history of the United
- 9 States, there have been only one or two events in
- 10 which you have had up to five thousand casualties.
- It's conceivable, again depending on
- 12 the scenario that you have in your mind, that
- 13 there would be ones that will be much different
- 14 than that.
- 15 It seems to me that my point here is
- 16 that one can be very creative with possible
- 17 scenarios, but that creativity in thinking out the
- 18 various possibilities of what could happen
- 19 probably is a drain on resources in thinking about
- 20 practical emergency planning.
- 21 It is much better to deal with
- 22 essentially much more realistic situations as the
- 23 base, and if the events that you have in your
- 24 imagination do occur, then you can build on that
- 25 at the time.

- 1 Q. So that if a disaster occurs at
- 2 Indian Point which does project casualties of more
- 3 than fifty thousand, or up to fifty thousand, we
- 4 could effectively deal on that on an ad hoc basis,
- 5 based on the outline of plans that we have so far?
- 6 A. (Witness Dynes) I am not sure where
- 7 you got that scenario.
- 8 Q. Well, we have had testimony before
- 9 this board from various experts.
- 10 A. (Witness Dynes) And what do you mean
- 11 by casualties?
- 12 Q. I mean deaths, early deaths within
- 13 one year, and delayed cancers.
- 14 A. (Witness Dynes) Well, I am not sure
- 15 any of the scenarios that I have seen go along
- 16 with this line.
- 17 Essentially, if I can add, one of the
- 18 reasons for emergency planning is to try to reduce
- 19 the consequences along that line.
- 20 Q. On page 7 of your testimony you talk
- 21 about the fact that people in emergencies behave
- 22 in an active goal-oriented manner.
- Would you agree that in the face of a
- 24 radiological emergency at Indian Point the most
- 25 effective goal-oriented area would be to try to

- 1 remove oneself from the area of danger as quickly
- 2 as possible?
- 3 A. (Witness Dynes) Well, that would
- 4 depend on the circumstances. One alternative would
- 5 be shelter, and there are others.
- 6 We are talking about an off site
- 7 release, I assume.
- Yes. We are always talking about an
- 9 off site release.
- MR. BRANDENBURG: Mr. Chairman, I
- 11 would like to interrupt. Might I inquire whether
- 12 this line of questioning is addressed to the panel
- 13 on one particular witness or another? I am unclear
- 14 the way the questions have been formulated.
- MS. POSNER: Well, I have been mainly
- 16 addressing them to this witness. Thank you.
- 17 Q. The basic thrust of your testimony is
- 18 that people will react the same way in a
- 19 radiological emergency as they do in other types
- 20 of man-made and natural disasters. Is that correct?
- 21 A. (Witness Dynes) Yes. Essentially the
- 22 best bet in terms of predicting behavior in
- 23 emergencies is in terms of past behavior, and in
- 24 terms of past behavior in other types of emergency
- 25 situations the people are essentially the same.

- 1 The agent may be different.
- 2 Q. But would you agree that, though in
- 3 some respects all emergencies are all like, that
- 4 in some respects any given emergency resembles
- 5 other emergencies, and in some respects every
- 6 emergency is unique?
- 7 A. (Witness Dynes) Yes.
- MR. PIKUS: I am going to object to
- 9 the form of question. If the witness understands
- 10 it, he is free to answer it.
- JUDGE GLEASON: Do you understand
- 12 THE WITNESS: (Witness Dynes)
- 13 Well, I think so. There are certain unique
- 14 features of any emergency. Certainly that's true.
- 15 Timing, and other things.
- 16 On the other hand, I think the
- 17 important things are the similarities. That allows
- 18 you to provide a better basis for generalization.
- 19 Q. Well, given the fact that you agree
- 20 that all emergencies are unique to some degree, do
- 21 you think that it is prudent to ignore the
- 22 evidences of differences between radiological
- 23 emergencies and other types of emergencies?
- A. (Witness Dynes) I don't know what you
- 25 mean by prudent.

- 1 Q. I mean in terms of emergency planning.
- 2 A. (Witness Dynes) There are certain
- 3 different characteristics of the agent from other
- 4 types of things, depending on what we are talking
- 5 about. You can do that with any type of agent. In
- 6 other words, tornadoes and hurricanes.
- 7 If a response to a particular agent,
- 8 a possible response, is evacuation, for example,
- 9 or sheltering, then essentially the planning is
- 10 basically the same.
- 11 Q. Would you agree that these are some
- 12 evidences of the differences of people's reactions
- 13 to the accident at Three Mile Island and to other
- 14 types of emergencies, for example those that are
- 15 listed on your testimony on page 8, the shadow
- 16 evacuation, the fact that only women and preschool
- 17 children within a five mile area were, in fact,
- 18 ordered by the authorities or advised by the
- 19 authorities to leave, and, in fact, fifty times
- 20 that many people left within a twenty mile area
- 21 surrounding the plant? Would that be different
- 22 from other experience with the suggestion to
- 23 evacuate?
- A. (Witness Dynes) No, not really. I
- 25 think the term shadow evacuation doesn't have an

- 1 awful lot of meaning. It's simply a term that
- 2 someone coined which has a rather dramatic name to
- 3 it.
- 4 But let me try to describe what
- 5 happened.
- 6 In TMI, in that particular situation,
- 7 there was obviously a good deal of ambiguity about
- 8 the nature of the accident and the off site
- 9 consequences.
- 10 And if you look at the data over that
- 11 particular period of time you would see that from
- 12 the beginning of the accident there were certain
- 13 people who left the area, who evacuated.
- 14 The notion somehow of evacuation, as
- 15 it's used in the notion of shadow evacuation,
- 16 implies that everybody stands still, and at some
- 17 particular time, when they get a message from some
- 18 authority figure, then everybody leaves.
- 19 Essentially the pattern of evacuation
- 20 in all types of emergency is that the official
- 21 message is one message that is used in people
- 22 making decisions. People will be leaving before,
- 23 and some people will be leaving after that
- 24 particular message. The TMI experience was no
- 25 different than you would find in a wide variety of

- 1 others.
- 2 Q. You have studies that you have done
- 3 or that you are familiar with that indicate that
- 4 in other types of emergencies when a certain
- 5 sector or segment of the population is advised to
- 6 leave the area, that other people, to a much
- 7 greater distance, do so spontaneously?
- 8 A. (Witness Dynes) Would you restate the
- 9 question?
- 10 Q. The question is is it your experience,
- 11 or understanding, or testimony, is it your
- 12 testimony, that in other accidents, and I would
- 13 appreciate it if you could name such accidents,
- 14 disasters, that when a certain segment of the
- 15 population has been advised to leave, say the
- 16 population within two miles of a chemical plant
- 17 has been advised had to leave, that a far greater
- 18 percentage of the people up to a far greater
- 19 distance has spontaneously left the area?
- A. (Witness Dynes) Well, I don't know
- 21 what you mean by spontaneously.
- Q. Without being advised to do so.
- 23 Without being advised of the necessity to do so.
- A. (Witness Dynes) People -- I don't
- 25 have essentially a sheeplike version of people.

- 1 People are making decisions about the nature of
- 2 their threat. Official advisories are an important
- 3 part of that, but they may make decisions to leave
- 4 at an earlier stage because they perceive the
- 5 danger, or they may feel this is the right time to
- 6 get out, at that particular point.
- 7 So what I am suggesting, if you look
- 8 at an evacuation pattern you will see that it's
- 9 not a foot race in which everybody essentially
- 10 leaves at a particular time. It's a gradual
- 11 process that tends to peak around the time where
- 12 you have official notification of such.
- 13 Q. So that postulates an accident or
- 14 situation in which a lengthy amount of time is
- 15 available for people to be making this decision,
- 16 and leaving, over a period of time.
- 17 A. (Witness Dynes) Yes. In that sense
- 18 that many things would -- in other words, there
- 19 would be a perception of essentially increasing
- 20 danger, if the illustration that you started with
- 21 was TMI, in which that was true.
- 22 Q. Shifting the focus now to Mr. Lecker,
- 23 Dr. Lecker, the burden of your testimony is that
- 24 people respond to the stress of the emergency and
- 25 not to the cause of the emergency, and that people

- 1 become more reliant on authority and more willing
- 2 to listen to the advice of authorities during an
- 3 emergency. Is that correct?
- 4 A. (Witness Lecker) That's some of my
- 5 testimony, yes.
- 6 Q. Are you aware of the information that
- 7 has been developed in the last few years about the
- 8 erosion of authority and the resistance to
- 9 authority, for example that public scepticism with
- 10 all level of government has increased in the last
- 11 twenty years?
- 12 A. (Witness Lecker) I am aware of that,
- 13 but I wonler if that relates to the context of an
- 14 emergency, or is that a general sort of
- 15 nonemergency status that you are referring to?
- Just to amplify, or to make a more
- 17 positive statement, regardless of the level of
- 18 scepticism, in an emergency people tend to react
- 19 with a fairly stereotyped set of responses, that
- 20 is the thrust of my testimony, regardless of their
- 21 pre-existing scepticism about authority or a plan
- 22 or anything else.
- So it would be your testimony, then,
- 24 that public opinion polls and data indicating that
- 25 the public scepticism about authority at all

- 1 levels of government has decreased in the last
- 2 twenty years will not affect the way they behave
- 3 during a radiological emergency at Indian Point?
- A. (Witness Lecker) That's correct. And
- 5 just to go on a little on that, of the
- 6 characteristic patterns I was referring to with
- 7 groups under stress, there are national tendencies
- 8 for both adults and children to tend to put
- 9 greater trust in authority under situations of
- 10 stress, especially when authority provides
- 11 alternatives for reducing danger.
- 12 If the information coming from
- 13 authority or authoritative sources provides
- 14 information for reducing danger, the evidence,
- 15 from all I have read, is that authority will then
- 16 be respected even more highly.
- 17 Q. So it is your testimony that the
- 18 experience of Watergate and the recent
- 19 Environmental Protection Agency scandal, and Love
- 20 Canal, and the bomb testing cases in Nevada, that
- 21 all these things, where the people feel that they
- 22 have been lied to by the government, will have no
- 23 effect on the way people will respond in a
- 24 radiological emergency?
- 25 A. (Witness Lecker) I think your

- 1 examples notwithstanding, or including those
- 2 examples, I can give you more. People are
- 3 sceptical of their doctors. They drive big fancy
- 4 cars and charge too much, but when you are sick
- 5 you take their advice.
- 6 Human nature is that in the context
- 7 of a specific emergency, where authority can be
- 8 looked to as probably the only source of direction
- 9 for reducing the danger, people will tend to trust
- 10 that authority regardless of their preexisting
- 11 level of scepticism.
- 12 Q. So if the authorities were to tell
- 13 people in the ten mile zone around Indian Point to
- 14 stay put, and go inside and shut the doors and
- 15 windows, people would be likely to do that?
- 16 A. (Witness Lecker) Yes, I believe so.
- 17 Q. And if people in the ten mile zone
- 18 were told to leave, and everybody else was told to
- 19 stay put, that those directions would be followed?
- 20 A. (Witness Lecker) I believe so, yes.
- 21 Q. Is it true that during these periods
- 22 the behavior of people tends to regress?
- 23 A. (Witness Lecker) In specific ways.
- 24 The word regression is a rather sweeping term. If
- 25 you would be more specific in terms of what type

- of regression you are refering to, I would like to
- 2 respond to that.
- Q. Is it your testimony that in periods
- 4 of stress people will regress to become more
- 5 dependent on authority?
- A. (Witness Lecker) Yes, that's correct.
- 7 O. Is it possible that people will
- 8 regress to become less rational?
- 9 A. (Witness Lecker) Only under extreme
- 10 circumstances where there is no structure, for
- 11 example no plan, and authority, itself, appears to
- 12 be confused and have no particular rational
- 13 alternative to offer to reduce the danger. In that
- 14 case there might be panic. That's the only
- 15 situation in which there might be panic.
- I would say further to that, that's
- 17 one of the major benefits of having an available
- 18 plan, with or without defects, that the plan
- 19 provides a structure, which reduces anxiety.
- 20 It also invests a certain degree of
- 21 authority in the leadership the people could then
- 22 turn to and trust.
- 23 Q. The pattern that you have developed
- 24 here of regression to dependence on authority,
- 25 would you say that that pattern is universal?

- 1 A. (Witness Lecker) From everything I
- 2 have read, studies of Vanis, Redleck, Asterham,
- 3 Reash, Glenn, Farber, and other experts, indicate
- 4 that in an emergency, laboratory situations, any
- 5 studies that I have read, that that is, in fact,
- 6 the pattern. Under stress people tend to regress
- 7 to a situation of being more compliant to
- 8 leadership.
- 9 Q. Is it your testimony that that would
- 10 be true for every single person involved?
- 11 A. (Witness Lecker) You can never say
- 12 something that is true for every single person.
- 13 There are always exceptions. I would say the vast
- 14 majority would respond in that manner.
- 15 Q. Is it possible that even one out of a
- 16 thousand behaving differently to the way you
- 17 predict could cause hitches, or mess up an
- 18 evacuation plan?
- 19 A. (Witness Lecker) I am not an expert
- 20 in terms of, you know, giving you some kind of
- 21 numerical probability on if one in a thousand
- 22 acted differently could they mess up the plan.
- There is no evidence that I have ever
- 24 read that says that, and every emergency that I
- 25 have ever read in all the literature, so I can't

- 1 respond to that except to refer you to the
- 2 literature, which says that even if people act
- 3 differently, the majority acting in the direction
- 4 that is orderly tends to lead to orderly.
- 5 It's your suggestion that one out of
- 6 a thousand people might act differently, and I am
- 7 saying I have to include that possibility.
- It's my testimony to the opposite,
- 9 that people would react in a fairly stereotyped
- 10 manner under stress.
- 11 Q. Do you think it would be prudent for
- 12 the planners and the people living in the ten mile
- 13 zone, people living within fifty miles of Indian
- 14 Point, to have some kind of numerical
- 15 determination of how many people might react as
- 16 you predict?
- 17 A. (Witness Lecker) I think they have that
- 18 data, based on every other emergency that has ever
- 19 been studied, from wartime to peacetime, man-made
- 20 and natural disasters. They have the data that
- 21 never, that I know of, in the history of recorded
- 22 science has there been other than an orderly
- 23 helpful response. When courage is put on trial
- 24 that never comes up wanting.
- 25 Q. People are heroes. Is that it?

- 1 A. (Witness Lecker) Under stress they tend
- 2 to be more so.
- Q. We don't have any information based
- 4 on surveys or polls of the area that we are
- 5 talking about right here around Indian Point to
- 6 suggest what people would do in case of an
- 7 emergency at Indian Point, do we?
- 8 A. (Witness Lecker) I don't know of any
- 9 studies done in this specific area.
- 10 Q. So the crucial question is what will
- 11 be the effect of people not acting as you predict?
- 12 A. (Witness Lecker) Well, you are asking
- 13 a question, and if you want to eliminate all the
- 14 previous data that every other disaster has ever
- 15 yielded, then we are, indeed, in a state of
- 16 confusion.
- 17 But I don't think we are. If we look
- 18 to every other study of every other disaster, I
- 19 think we can be assured that the existence of an
- 20 evacuation plan will improve things.
- 21 The absence of an evacuation plan
- 22 will still lead to orderly behavior. That
- 23 certainly was the case in Mississauga, at TMI.
- 24 Plans only make people believe in authority and
- 25 respond to them more effectively.

- 1 Q. On page 6 of your testimony you
- 2 testified that contentions which suggest that
- 3 human response to radiological emergencies are
- 4 somehow distinguishable are unsupported by
- 5 psychological theory or empirical evidence?
- A. (Witness Lecker) Yes, that's correct.
- 7 Q. Wouldn't it be more correct to say
- 8 that you don't agree with other theories, or that
- 9 you are unfamiliar with other theories, than to
- 10 say there is no support?
- 11 A. (Witness Lecker) No. I would say that
- 12 even those witnesses that the intervenors have
- 13 presented here, for example Kye Ericson, I read
- 14 his book, Everything in Its Path, and
- 15 notwithstanding the testimony that there are
- 16 differences between the radiological and
- 17 nonradiological emergencies, if you read his book,
- 18 the study of Buffalo Creek, he makes a very strong
- 19 point of saying that natural disasters should be
- 20 used as laboratories of all disasters because of
- 21 the similarities, including nuclear disasters or
- 22 radiological disasters. He makes it crystal clear
- 23 that similarity is the important thing in
- 24 disasters, not the difference.
- 25 Q. On page 7 you talk about the behavior

- 1 of traditional emergency workers.
- 2 Could you tell me what specific
- 3 studies this information is based on?
- 4 A. (Witness Lecker) Well, there are quite
- 5 a number of studies I have in my brief case I can
- 6 refer to.
- 7 You are talking about studies where
- 8 traditional emergency workers responded
- 9 effectively?
- 10 Q. Yes.
- 11 A. (Witness Lecker) I don't know of any
- 12 study where they didn't. As I said, I can pull out
- 13 a whole list of references. But I have never read
- 14 one study that said policemen, firemen, or any
- 15 other traditional emergency workers deserted their
- 16 responsibilities.
- 17 Q. Have you been involved in any
- 18 behavioral studies on the Three Mile Island?
- 19 A. No.
- 20 Q. Are you familiar with an article by
- 21 Dr. Christopher Maxwell that indicates hospital
- 22 staff left their posts during the accident?
- 23 A. I have not read that study, but I am
- 24 familiar with some of the hospital staff since we
- 25 have run an office at Three Mile Island for three

- 1 years, and we are not familiar with anything of
- 2 that nature.
- In fact, a letter sent to me by the
- 4 superintendant of schools says that not one single
- 5 teacher deserted her post, and the dismissal of
- 6 children was completely orderly.
- JUDGE GLEASON: Ms. Posner, may I ask
- 8 a question?
- 9 MS. POSNER: Yes.
- JUDGE GLEASON: Dr. Lecker, would you
- 11 tell us specifically what your relationship was in
- 12 analyzing the Three Mile Island situation
- 13 THE WITNESS: (Witness Lecker) I
- 14 was called in right after the accident to assess
- 15 the plant workers' levels of stress.
- JUDGE GLEASON: Called in by whom?
- 17 THE WITNESS: (Witness Lecker) At
- 18 that point by Metropolitan Edison, which was one
- 19 of the operating companies. And myself and several
- 20 of my colleagues established a crisis sort of
- 21 stress workshop for employees, kind of a twelve
- 22 hour a day seven day a week clinic which ran for
- 23 employees. It ran in a location just about across
- 24 the road from the plant, and it continued -- it
- 25 offered help to employees or their families.

- 1 We also did a survey of employee
- 2 stress factors that -- what they found stressful,
- 3 or how they perceived the danger.
- 4 I might just say or offer to you that
- 5 approximately forty percent of them said that they
- 6 had severe anxiety related to the possible loss of
- 7 their job, and only about four or five percent of
- 8 them said they were anxious about the radiation
- 9 danger. These were employees working on the site,
- 10 in all confusion, with all the ambiguity that was
- 11 purportedly going on.
- So we had a very small percentage of
- 13 people who were concerned about the radiation
- 14 danger, and all of them still went to work. There
- 15 were no desertions.
- In fact, our greatest problem was
- 17 employees coming back on duty without being asked
- 18 to, volunteering to go in and help, and feeling
- 19 rejected when they were told they weren't needed.
- 20 That's the feeling we find in many mass disasters.
- 21 Doctors and nurses report to hospitals.
- In any case, that was our initial
- 23 exposure to Three Mile Island, and from that time
- 24 on we have operated an office in Middletown for
- 25 mental health purposes for the staff of Three Mile

- 1 Island, for the staff, for their families, et
- 2 cetera.
- In addition, we provide psychological
- 4 screening services for all employees who will work
- 5 in protected areas of the plant, so no one can, --
- 6 in fact this is fairly general in the whole
- 7 industry -- nobody can come onto a site in any
- 8 secure area unless they have been cleared as
- 9 sociologically fit to withstand the stress, or
- 10 they are not carrying along with them burdens of
- 11 stress or emotional problems.
- 12 That's the nature of our services.
- JUDGE GLEASON: There has been
- 14 testimony in this proceeding that tends to
- 15 indicate that one of the difficulties that people
- 16 have is the difficulty of dealing with the unknown,
- 17 particularly in terms of radiation.
- 18 If your experience was concentrated
- 19 on on site workers, you are not dealing with those
- 20 that don't know, you are dealing with those that
- 21 know, and therefore it becomes a question as to
- 22 how relevant are your comments with respect to
- 23 those who are not on site workers, and who are
- 24 outside.
- THE WITNESS: (Witness Lecker)

- 1 Well, I would just add to that that a large
- 2 percentage of the workers that we deal with don't
- 3 know any more than the general public. The
- 4 information available at that time to workers
- 5 wasn't any better than the information available
- 6 to anyone else.
- 7 I was there, we spoke to the workers,
- 8 they found out by rumor, just like anybody else,
- 9 what was going on. The actual information
- 10 available at all levels was pretty poor, and
- 11 certainly there wasn't any kind of ideal
- 12 communication from the top down.
- I have also been involved in other
- 14 nuclear power plants, for example Diablo Canyon,
- 15 studying the response of community and employees,
- 16 and find the same kind of thing.
- 17 Pacific Gas and Electric employees,
- 18 who are perhaps not control room operators, at all
- 19 other levels, and district people, like linemen
- 20 and so on, know not a heck of a lot more than the
- 21 average public about the operations of the plant,
- 22 or the dangers, or whatever else. So there is an
- 23 unknown factor even with employees.
- JUDGE GLEASON: It is your testimony,
- 25 then, that the extent of their knowledge, or lack

- of knowledge, is comparable to somebody on the
- 2 outside?
- THE WITNESS: (Witness Lecker) I
- 4 would say with the exceptions of highly technical
- 5 people. Radiation detection people would know more,
- 6 control room operators would know more. But there
- 7 are large numbers of clerical employees,
- 8 maintenance employees, trade men, who know very
- 9 little other than how to put two pipes together.
- 10 JUDGE SHON: Dr. Lecker, I hesitate
- 11 to prolong this, but it occurs to me that there is
- 12 another, perhaps more subtle, dichotomy among
- 13 people, and that is this:
- There are people who accept radiation,
- 15 and nuclear radiation, I mean, not necessarily
- 16 solar radiation, but nuclear radiation, who accept
- 17 it as simply another hazard which one can deal
- 18 with with the proper equipment.
- 19 There are, on the other hand,
- 20 apparently a large number of people, I don't know
- 21 what fraction of the population they constitute,
- 22 who view this hazard as something so horrifyingly
- 23 and subtly different from anything else, that they
- 24 can't conceive of anyone getting near such stuff.
- 25 Generally speaking it is the first

- 1 group of people who work in nuclear emergency
- 2 plants, because if you belong to the second group
- 3 you wouldn't be there.
- A But most of the questions I have
- 5 heard the intervenors ask, and most of the
- 6 suggestions they make, are postulated on the idea
- 7 that the second group, the group that believes
- 8 that radiation is, as I think William O. Douglas
- 9 said, the most awesome force ever released upon
- 10 mankind, if that group of people is, as the
- 11 intervenors think, a substantial majority among
- 12 the population, you don't find them working in
- 13 nuclear power plants, so your example is not
- 14 relevant.
- 15 But there is a scene that operates to
- 16 say most of those people are outside the fence.
- 17 Here they are confronted by this thing that they
- 18 most fear. Is it possible that there is a
- 19 substantial body of thought?
- THE WITNESS: (Witness Lecker) I
- 21 can respond to that, yes.
- 22 Certainly people probably would be
- 23 concerned if they knew, it is a fact, that the
- 24 radiation released from a fossil fuel plant in the
- 25 immediate vicinity is higher than it is from a

- 1 nuclear plant --
- JUDGE SHON: Not in an accident.
- THE WITNESS: (Witness Lecker) No.
- 4 I am talking about this unknown factor, or the
- 5 fact that they get a substantial dose of radiation
- 6 when they take a transcontinental flight and go
- 7 into the stratosphere.
- There have been studies, and one was
- 9 quoted, in fact, by Dr. Ericson, the Slovic
- 10 Lichtenstein study, that said the women in the
- 11 study were afraid of nuclear power more than any
- 12 other. Yet, the same group, apparently, wasn't
- 13 afraid of a radium insertion, say, for the
- 14 treatment of cancer. So the issue was not are they
- 15 afraid of radiation. They are not afraid of x-rays.
- I don't think the issue is whether
- 17 they are afraid of the radiation as such. I think
- 18 it is whether they have some feeling of trust in
- 19 the authority that's handling the radiation. And I
- 20 think that an evacuation plan improves that level
- 21 of trust.
- 22 You trust your doctor, you trust your
- 23 dentist, so you will let him take an x-ray of your
- 24 jaw. You trust your gynecologist, you might let
- 25 him insert radium into your uterus. This is wide

- 1 spread. Anytime people are included in a process
- 2 through information, through an outreach by
- 3 authority, they begin to trust authority more. I
- 4 think this process, this hearing, proves that
- 5 trust.
- 5 JUDGE SHON: So what you are saying,
- 7 in effect, is that there is a substantial portion
- 8 of the population that suffers this extreme fear,
- 9 the presence of the plan will decrease the size of
- 10 the portion?
- 11 THE WITNESS: (Witness Lecker)
- 12 That's well known. The existence of a plan which
- 13 gives structure and meaning to a danger also
- 14 reduces anxiety. This has been shown in study
- 15 after study.
- I am also saying that the process of
- 17 including the population, and this is known from
- 18 the studies we have done in the 60s and 70s in
- 19 working with disaffected youth, and
- 20 disenfranchised minorities, to the extent any
- 21 group is involved in a process, that group begins
- 22 to trust authority more and more. This is why Dr.
- 23 Dynes's testimony makes so much sense to me.
- JUDGE GLEASON: Do you have such
- 25 studies that show this reduction effect in terms

- of emergency planning to nuclear facilities?
- THE WITNESS: (Witness Lecker) For
- 3 nuclear facilities I do not have any. I think that
- 4 we are too young in this field to really have such
- 5 data available yet. I think it's a fruitful area
- 6 to proceed.
- JUDGE GLEASON: All right, Ms.
- 8 Posner. Thank you.
- 9 Q. On page 9 and 10 of your testimony
- 10 you talk about absence of panic and isolation of
- 11 affect. How, in that context, do you define panic?
- 12 A. (Witness Lecker) Would you be more
- 13 specific in your question, perhaps?
- If I talk about absence of panic I am
- 15 not talking about any kind of panic. That's why I
- 16 am not sure what you are really asking me.
- 17 Q. Well, are you talking there about
- 18 behavior of aimless running around screaming, and
- 19 that there is none of that?
- 20 A. (Witness Lecker) I am talking about
- 21 the absence of panic. No panic. I am talking about
- 22 people responding in an orderly way. And the
- 23 isolation of affect is an acknowledged
- 24 phychological mechanism that people invoke.
- 25 And what that means, perhaps, we are

- 1 all familiar, perhaps, driving by an accident at
- 2 the roadside, and seeing some injured people, and
- 3 the relatives who are not injured. The relatives
- 4 don't appear to be panicked. They appear to be
- 5 emotionless for a time. Only when the full extent
- 6 of the injuries are known does the emotion surface.
- 7 It is well known that in any kind of
- 8 emergency it's as if we are given an opportunity
- 9 to deal with the stress or emotional reaction on
- 10 the installment plan. We don't have the full dose
- 11 of anxiety at the time of the emergency. This
- 12 provides for us to react positively,
- 13 constructively, and only later on do we bear the
- 14 full emotional load, perhaps several days or weeks
- 15 later.
- 16 Q. Is it your testimony that people do
- 17 not feel emotion in a crisis situation?
- 18 A. (Witness Lecker) Not so at all. I am
- 19 saying there is a period of time in which a
- 20 psychological mechanism acts to reduce the
- 21 expression of emotion. That can go from the
- 22 extreme of not feeling it for a short period of
- 23 time, to feeling it, but not feeling it to the
- 24 full extent.
- 25 Somebody, say, seeing a relative

- 1 that there was a shortage of personnel, because
- 2 there was, in a sense, no real stress on that
- 3 particular hospital, other than phychological. In
- 4 terms of patient load they actually reduced their
- 5 personnel.
- I understand from other sources, and
- 7 again I can only add this to the physicians'
- 8 observation, that there were some, essentially
- 9 personnel who, well, who had maintenance work,
- 10 emptied bedpans, and this type of thing, who did
- 11 not show up, and this irritated particularly some
- 12 of the professional help.
- But in terms of any type of shortage
- 14 which suggests generally a decline in the medical
- 15 capability of that hospital, I don't think that's
- 15 true.
- 17 In other words, the general pattern
- 18 in most emergencies in a hospital situation is
- 19 that you have personnel who are certainly willing
- 20 to work longer hours. If you are on a shift type
- 21 of context many people will wait at home.
- 22 It could be, in the case of Maxwell's
- 23 observation along this line, that certain shifts
- 24 had been told to wait at home but he simply was
- 25 not aware of that because he is not part of the

- l killed in a car accident doesn't necessarily start
- 2 crying right away. They may later on. They may
- 3 grieve for a month. But the full reaction of the
- 4 emotional response doesn't occur immediately.
- 5 O. So is it your testimony that this
- 6 isolation of affect is universal --
- 7 A. Lecker it's universal, and has been
- 8 universally described. Yes.
- 9 C. Is it a characteristic response of a
- 10 person who is clinically diagnosed as hysterical?
- 11 A. (Witness Lecker) No. It's a response --
- 12 it may be a part of that diagnostic category, but,
- 13 as is the case with any diagnostic category, there
- 14 are elements of any psychiatric condition that are
- 15 part of the norm.
- 16 For example, if you take depression,
- 17 which is a clinical entity, we all feel depressed
- 18 from time to time. That is not clinical. That is a
- 19 normal response to loss.
- 20 Isolation of affect is a normal
- 21 psychological defense mechanism that in hysterical
- 22 characters tends to take place with greater
- 23 frequency than the norm.
- 24 Q. Is it a characteristic response of
- 25 people who are manic depressive?

- 1 A. (Witness Lecker) Not that I know of.
- Q. Isn't it true that it is the
- 3 characteristic response of obsessive compulsive
- 4 people?
- 5 A. (Witness Lecker) That's true. Again
- 6 with the stipulation that I mentioned before.
- 7 What you are doing is saying these
- 8 are clinical conditions in which this
- 9 psychological defense mechanism, which operates
- 10 universally, in these cases this is exaggerated
- 11 and becomes nonfunctional.
- 12 Q. Do you have any information about
- 13 whether the percentage of people in the area
- 14 affected by Indian Point are more inclined to be
- 15 hysterical or manic depressive and obsessive
- 16 compulsive?
- 17 A. (Witness Lecker) I am sure you would
- 18 find on any survey that the people in Westchester
- 19 County, and I am a resident of Orange County and
- 20 formerly a resident of Rockland County, that the
- 21 cross section is probably the same way as anywhere
- 22 else, except in my neighborhood in Manhattan,
- 23 where it is probably more extreme.
- Q. Would you agree that reaction to
- 25 stress is curvilinear?

- 1 A. (Witness Lecker) Could you bring that
- 2 into lay terms? I don't understand that.
- 3 Q. I am referring to your testimony on
- 4 page ten. "Once an emergency sequence begins the
- 5 human mind and bory mobilize, and an entirely new
- 6 attitude emerges."
- 7 In other words, a little emergency is
- 8 good for you?
- 9 A. (Witness Lecker) I don't recall
- 10 saying a little emergency is good for you.
- 11 Q. No. I said in other words, that the
- 12 reaction increases, or becomes more optimal at
- 13 first, and goes up to a maximum level of stress,
- 14 and then, after a certain maximum level, the curve
- 15 begins to turn downward again, and the reaction
- 16 causes more disruption in the behavior?
- 17 A. (Witness Lecker) Well, if you are
- 18 referring to the general adaptation response
- 19 described by Selvi, and many, many, others that
- 20 followed him, that is the general pattern.
- The initial response under stress is
- 22 an increase of what they call a resistance, and a
- 23 mobilization of both bilchemical and psychological
- 24 level as an adaptive response.
- 25 And that adaptive response, I might

- 1 add, can be sustained for quite a long time. We
- 2 know people who go through very long illnesses, or
- 3 wartime situations, or very stressful situations
- 4 at their work, and they maintain a long level of
- 5 adaptive response.
- And, in fact, as you have described,
- 7 there is a period of time in which that response
- 8 begins to wane. We describe that in various ways.
- 9 The fashionable term now is burn out.
- 10 Q. So that you would agree that there is
- 11 an optimal point above which added stress produces
- 12 less adequate behavior?
- 13 A. (Witness Lecker) There is a point
- 14 where that happens. That's correct.
- 15 Q. On page 10, the second full paragraph,
- 16 where you talk about the fact that you assign
- 17 little credence to predictions that bus drivers
- 18 will not show up, or people will ignore the plan,
- 19 even when such predictions are made by the
- 20 individuals themselves, what evidence do you have
- 21 that people will respond differently from what
- 22 they say they will respond?
- 23 A. (Witness Lecker) Well, probably the
- 24 most universal evidence that I can offer you is
- 25 that a hundred percent of married people have

- 1 promised to love, honor, and obey, and fifty
- 2 percent of them get divorced.
- 3 It's a well known defect in
- 4 sociological work that attitude surveys show what
- 5 your attitude is, but they don't show what your
- 6 possible behavior is.
- 7 Your future behavior is best
- 8 predicted by your past behavior, and every study I
- 9 have read, including the study at Three Mile
- 10 Island, and Dr. Ericson's study on Long Island,
- 11 they don't tap at all what did people did in their
- 12 last emergency. They simply ask, "What are you
- 13 afraid of, " or, "What might you do?"
- 14 If these studies were broadened to
- 15 include what did you actually do when you passed
- 16 that car accident, or when the building was
- 17 burning, you would get a much better predicter of
- 18 what that person might do the next time.
- 19 Q. Are you aware of any such studies, or
- 20 have you ever participated in a study that asked
- 21 people before and after emergencies what they
- 22 would do and then what they had done?
- 23 A. (Witness Lecker) I would defer to Dr.
- 24 Dynes on this.
- 25 A. (Witness Dynes) We, in terms of a

- I research problem that I was involved in, we looked
- 2 specifically at emergency workers, police, fire,
- 3 hospitals, a whole series of things. And I suspect
- 4 over seventeen years we collected seven thousand
- 5 interviews with emergency workers. These are all
- 6 done after the event. People described their
- 7 behavior.
- We never found anyone who left their
- 9 post in an emergency situation, not one instance.
- 10 Q. Isn't it true that in nonemergency
- 11 situations that the best way to find out what
- 12 people will do is to ask them, and that, in fact,
- 13 businesses spend millions of dollars every year to
- 14 predict the behavior of people based on their
- 15 attitude?
- 16 A. (Witness Lecker) No. I disagree
- 17 completely.
- 18 As part of the consulting work that I
- 19 do I do exactly this for businesses. We
- 20 psychologically screen people, not only for the
- 21 nuclear industry, but also many other types of
- 22 jobs.
- The most reliable information, that
- 24 we give about three times the weight that we give
- 25 to their attitude, is what have you done?

```
If somebody says, "I promise to work
 1
     here, and work here reliably," we ask, "How long
 2
     did you work at your last job?"
 3
 4
                  The most important thing is past
 5
     behavior. There is why you have an appended resume.
     What have we actually done, not what I intend to
     do.
 7
 8
                  JUDGE GLEASON: Ms. Posner, may I ask
 9
     a question?
                  MS. POSNER: Yes.
10
11
                  JUDGE GLEASON: Dr. Dynes, when you
12
     responded to the second to last question about
13
     testing emergency responses, once again we are
14
     dealing with people that are trained to deal with
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16 In trying to develop a question 17 similar to the question sked Dr. Lecker before, 18 what about testing the emergency responses of 19 people who are not so trained? Are there any 20 studies of that nature dealing with what they actually did in actual emergencies as a measure of 21 what they will do? 22

15

23

emergencies.

THE WITNESS: (Witness Dynes) I meant to imply that in my answer. I think the 24 25 illustration of the groups that I included

- 1 probably gave the impression, when I said police
- 2 and fire. I am talking about a range of emergency
- 3 roles, including civil defense, and including
- 4 volunteers.
- 5 I think the difference is, a lot of
- 5 time the notion that people will not do things,
- 7 they don't have any role in the emergency. And
- 8 through planning, one of the important parts of
- 9 the planning effort is essentially to assign roles
- 10 in the plan so that people have obligations to do
- 11 things.
- 12 So we looked, at least over the
- 13 research experience, a long time at a variety of
- 14 situations where there was clear emergency
- 15 responsibility, and essentially that was the basis
- 16 of the generalization.
- 17 And I think obviously you get a
- 18 greater probable conformance among traditional
- 19 emergency organizations like the police and fire.
- 20 But if people have other roles, even
- 21 though they don't play them full time, and know
- 22 what they are to do in these situations, you find
- 23 a very high conformance.
- JUDGE GLEASON: Well, still, once
- 25 again we are dealing in terms of people who are

- l assigned a role.
- 2 What about people who have a role to
- 3 play, but that role is kind of loosely assigned?
- In other words, in an evacuation
- 5 everybody has a role to play. They have to move
- 6 out. And some of this testimony has indicated they
- 7 are not going to do that. If their children are
- 8 supposed to be bussed out of schools they are
- going to go to the school and get their child
- 10 first, which obviously would throw an emergency
- 11 plan into chaos.
- 12 Other people are going to not go the
- 13 evacuation routes, they are going to look for
- 14 their own routes, and things like that.
- 15 Have there been tests that attempted
- 16 to show what the general public does in actual
- 17 emergencies as an indication of what they will do?
- THE WITNESS: (Witness Dynes)
- 19 Well, usually, by and large, individuals -- you
- 20 don't have to plan everything for everybody down
- 21 there. In other words, I think one of the problems
- 22 that I have experienced, and many people think of
- 23 people as problems in emergencies, I don't think
- 24 of them as problems, I think of them as resources.
- 25 And essentially they are the resources that you

- 1 have to depend upon. They are also essentially
- 2 capable of making certain decisions themselves as
- 3 to how to leave, how to do particular things. I
- 4 don't think you have to plan everything out.
- 5 So I think that the major thing would
- 6 be to provide individuals with notions of what are
- 7 the potential effects for them, what are ways to
- 8 avoid those particular effects, what are ways to
- 9 take protective action.
- In an evacuation plan, why, that's
- 11 essentially an attempt to plan certain types of
- 12 options for people. In the implementation of an
- 13 emergency plan I wouldn't be overly concerned as
- 14 to whether one or two people, or some people, took
- 15 an alternative route, just as long as they got out.
- JUDGE GLEASON: What if you had forty
- 17 percent of them?
- 18 THE WITNESS: (Witness Dynes) They
- 19 could adapt to that if they understand the reasons
- 20 for the route.
- JUDGE GLEASON: Who could adapt?
- 22 THE WITNESS: (Witness Dynes) The
- 23 people that are evacuating. They are getting
- 24 constant information. They get constant
- 25 information to the consequences of that. This is

- 1 something that goes on all the time in terms of
- 2 traffic in and out of major cities.
- 3 THE WITNESS: (Witness Lecker) Can
- 4 I offer?
- JUDGE GLEASON: Sure.
- 6 THE WITNESS: (Witness Lecker)
- 7 There is a body of research work called bystander
- 8 behavior. I think this refers to the people you
- 9 are talking about, people without any roll, and
- 10 how would they react in an emergency.
- 11 And the overwhelming weight of this
- 12 research into bystander behavior shows that, given
- 13 certain circumstances, the bystander, or the
- 14 average population, will respond very
- 15 constructively.
- Number one, the person has to accept
- 17 or agree that there is, indeed, an emergency. So
- 18 say a siren blew in the case of a nuclear power
- 19 plan accident, and there was a warning on the
- 20 radio. We would accept that the bystander would
- 21 accept that there is, indeed, an emergency.
- 22 The second condition is that this
- 23 individual feels that his or her contribution to
- 24 the solution is important, it's valued, it will
- 25 make a difference.

- And given those two major circumstances, the person will respond
- 3 constructively.
- 4 Now, I would imagine, given the
- 5 scenario that we have never really seen yet, of a
- 6 major off site spill of radiation, that these two
- 7 circumstances would exist, that the person in the
- 8 existence of a plan that says your response to
- 9 this plan is important, it will make a difference
- 10 to our safety, and, in fact, a bona fide warning
- 11 that says this is a real emergency, that the body
- 12 of literature to bystander behavior says that
- 13 these people will respond constructively.
- JUDGE PARIS: Dr. Lecker, it seems to
- 15 me that you are assigning bystanding behavior to
- 16 people to evacuees. Isn't there a difference? A
- 17 bystander normally is not involved in the in this
- 18 situation as a victim. The bystander normally
- 19 assists the victim.
- I have seen bystander behavior, and I
- 21 have been a bystander to accidents where
- 22 bystanders were behaving rationally and assisting,
- 23 where I thought the victims were panicked.
- 24 Isn't there a difference in
- 25 evacuations?

- THE WITNESS: (Witness Lecker)
- 2 Well, I guess the word "bystander" may be a
- 3 misnomer. The research, though, I thinks stand us
- 4 in good stead.
- 5 In a nuclear or any other major
- 6 disaster, we still use that term, bystander, be it
- 7 wartime, tornado, floed.
- Nobody is truly a bystander. We are
- 9 all subjected to possible danger. However, the
- 10 discrimination between bystander and victim simply
- 11 means the person, say in the case of a tornado, is
- 12 the one who is hit by a tree, as opposed to the
- 13 one who hasn't yet been affected.
- 14 I think in the scenario here nobody
- 15 would, in fact, be a victim as such. The effect of
- 16 radiation, even if someone were affected, wouldn't
- 17 be visible immediately. So everybody would be
- 18 reacting, in my mind, as if they were a bystander.
- 19 And bystander research shows, a bystander,
- 20 somebody involved in the circumstances, not yet
- 21 perceiving himself to be affected, that person
- 22 will react effectively
- JUDGE PARIS: So you are saying the
- 24 bystanders would exhibit bystander reaction.
- THE WITNESS: (Witness Lecker)

- 1 Sure.
- JUDGE GLEASON: We would like to take
- 3 a ten minute recess.
- 4 (There was a short recess.)
- JUDGE GLEASON: Can we proceed,
- 6 please?
- 7 Ms. Potterfield, are you going to
- 8 have cross examination of these gentlemen?
- 9 MS. POTTERFIELD: Not unless there is
- 10 additional time, Judge Gleason.
- JUDGE GLEASON: All right. Let's
- 12 proceed, please.
- 13 CROSS EXAMINATOIN CONTINUES
- 14 BY MS. POSNER:
- 15 Q. Dr. Lecker, on page 11 of the
- 16 testimony there is a sentence, "The fact that the
- 17 threat is imperceptible should reduce fear, rather
- 18 than enhance it."
- 19 Could you tell me on what basis you
- 20 wrote that sentence?
- 21 A. (Witness Lecker) Let me refer you to
- 22 Dr. Ericson's book describing his experiences at
- 23 Buffalo Creek, in which he talks about the long
- 24 lasting effects of the disaster at Buffalo Creek
- 25 was because of the fact that people couldn't get

- 1 out of their minds the picture of the boiling
- 2 rampage of water, the sea of mud that engulfed
- 3 their houses and property and human beings.
- 4 And it's really true of so many
- 5 disasters that what makes an indelible imprint on
- 6 the mind of the victim is the actual fact that you
- 7 can see the damage, and that the anxiety, the
- 8 memories that come back, the memory traces that
- 9 stir up anxiety, are because you have this
- 10 indelible visual imprint, if you like, of the
- 11 disaster.
- 12 It's hard for me to imagine that a
- 13 disaster, so-called, where the dangerous agent is
- 14 not seen, could create such kind of memory traces.
- Now, another intervenor witnesses in
- 16 his pre-trial testimony, Dr. Lifton, talked about
- 17 Hiroshima, and I think erroneously said that the
- 18 radiation, being in visible, was most traumatic.
- 19 Hiroshima was far from invisible. The
- 20 entire city was leveled, and people were burned,
- 21 and torn apart. It is my contention that the
- 22 actual visible aspect of that disaster, not the
- 23 invisible aspect of the radiation, is what caused
- 24 so many of the phychological consequences.
- 25 Q. So this is your theory that the

- 1 visible aspects are more horrifying?
- A. (Witness Lecker) It's not my theory.
- 3 It's my review of the literature. The interviews
- 4 done with the victims, in which the victims report
- 5 that a major part of the post traumatic neuroses
- 6 was the visual memories of those disasters. It's
- 7 hardly my theory.
- 8 Q. How would you reconcile that review,
- 9 or theory, with the results found by Mr. Kautz,
- 10 the investigator at TMI, when he found that one
- 11 year after the accident thirteen percent more
- 12 people were upset a year later than were upset
- 13 during the accident?
- 14 A. (Witness Lecker) Well, if you want to
- 15 talk about the studies done by Dr. Kautz, perhaps
- 16 I should comment on some of the defects of his
- 17 methods and his conclusions.
- 18 MR. PIKUS: Judge, I hate to
- 19 interrupt my witness. If Dr. Lecker is going to be
- 20 testifying about Dr. Kautz's study, I would ask
- 21 that Ms. Posner show a copy to the witness, if she
- 22 has it.
- JUDGE GLEASON: He seems to be very
- 24 familiar with it.
- 25 THE WITNESS: (Witness Lecker) Can I

- 1 make comments?
- 2 Q. In other words, you reconcile
- 3 your theory with his findings on the basis that
- 4 his methodology was inadequate?
- 5 A. (Witness Lecker) Well, I think his
- 6 methodology was inadequate, and his conclusions
- 7 were erroneous.
- 8 His method was telephone interviews,
- 9 which has hardly proven to be a worthwhile method.
- 10 In fact, Dr. Glazer and others that studied
- 11 Buffalo Creek stated that interviews were
- 12 essential.
- The only people he did interviews
- 14 with were patients of the Hershey Medical Center,
- 15 which is hardly a representative group.
- 16 In terms of the defects of his
- 17 conclusions, one is, I think, that he embraces all
- 18 in one category, makes no distinction between
- 19 people who suffered illness or people who
- 20 complained of illness or stress.
- 21 Stress is a big word. I have stress
- 22 sitting here now, but I am not ill. But I have all
- 23 the symptoms of stress, rapid heartbeat, cold
- 24 hands. Stress and illness are not synonymous.
- 25 In terms of the specific statistic

- 1 that you mentioned, there is no way that his study
- 2 shows that this is an increase in incidence, as
- 3 opposed to, for example, simply an increase in
- 4 disclosure.
- I will give you a simple analogy.
- 6 When you go to a cocktail party, and somebody
- 7 begins to talk about their psychiatrist, what was
- 8 previously a taboo subject, suddenly everybody is
- 9 talking about their psychiatrist, and their
- 10 particular medications, and there anxiety. And
- 11 suddenly there is a high incidence in the room of
- 12 describing illness, when before the person
- 13 mentioned it there was no incidence.
- Now, when a survey is done, and
- 15 another survey is done, and it's repeated time
- 16 after time, and it becomes commonplace to talk
- 17 about the stress I felt after Three Mile Island,
- 18 there is an inclination to talk about stress. This
- 19 is not increased incidence, it is inclreased
- 20 disclosure.
- JUDGE PARIS: Dr. Lecker, in this
- 22 room cold hands do not necessarily indicate stress.
- 23 Q. Are you familiar with the studies by
- 24 Slovic, Bischoff and Lichtenstein?
- 25 A. Yes, I am.

- 1 Q. They show that after testing various
- 2 public, that an accident in a nuclear power plant
- 3 is considered more dangerous than any hazard
- 4 except nuclear war and terrorism.
- 5 A. (Witness Lecker) Yes. And that same
- 6 study showed that the subjects were not nearly as
- 7 afraid of other forms of radiation. And I think
- 8 that that's an important point. It's not the issue
- 9 of radiation from a possible nuclear accident.
- 10 It's the context. Do they trust the people, do
- 11 they feel that they are involved, do they have an
- 12 evacuation plan, do they have information?
- 13 When your doctor says I am going to
- 14 give you radiation in the form of an x-ray, nobody
- 15 panics. That's because you trust him, he has a
- 16 track record with you, and so on.
- 17 It was my earlier contention that the
- 18 very existence of a plan which involves people in
- 19 the process of being involved, and helping solve
- 20 the possibility of an accident, would decrease the
- 21 anxiety.
- 22 The study you referred to simply took
- 23 a group of women and asked them about their fears.
- 24 These were not women who had been involved in the
- 25 planning process around a nuclear power plant.

- 1 These women probably never saw an an evacuation
- 2 plan, nor could they have been involved in such a
- 3 plan.
- 4 Q. Is it your understanding that most of
- 5 the women around Indian Point have been involved
- 6 in an evacuation plan for Indian Point?
- 7 A. I think they are involved to the
- 8 extent that he have information. And as the
- 9 planning process proceeds they will be more and
- 10 more involved. And the publicity surrounding these
- 11 hearings, and everything else surrounding the plan,
- 12 will continually involve these people to the point
- 13 where their reassurance will increase.
- 14 Q. Is it your understanding that the
- 15 people who have the most understanding about the
- 16 plan are the most reassured?
- 17 A. (Witness Lecker) I have no
- 18 information on that.
- 19 Q. You certainly don't.
- 20 On the last page of your testimony
- 21 you talk about a fire fighter entering a blazing
- 22 building in danger of imminent collapse. Do you
- 23 have any information of how many fire fighters in
- 24 the ten mile EPZ have, in fact, entered a blazing
- 25 building in imminent danger of collapse?

- 1 A. (Witness Lecker) I couldn't give you
- 2 that statistic.
- 3 Q. Is it your understanding that all the
- 4 emergency workers in the area have dosimeters?
- 5 A. (Witness Lecker) I don't have
- 6 information on that
- 7 MS. POSNER: That's all. Thank you.
- 3 JUDGE GLEASON: Any redirect?
- 9 MR. PIKUS: I have some redirect,
- 10 judge. I am just wondering if any interested
- 11 parties or the staff have any more cross first.
- JUDGE GLEASON: Well, I don't think
- 13 so.
- 14 REDIRECT EXAMINATION
- 15 BY MR. PIKUS:
- 16 Q. Dr. Lecker, the panel was asked a
- 17 question very early on by Ms. Posner concerning
- 18 the public's inability to be able to detect
- 19 radiation and the effect that might have on the
- 20 response to the emergency. I believe the question
- 21 was directed more to Dr. Dynes at the time, so you
- 22 didn't have an opportunity to respond.
- Do you have anything you might wish
- 24 to add to Dr. Dynes's comment?
- 25 A. (Witness Lecker) In terms of how

- 1 would they respond in the absence of their ability
- 2 to detect radiation?
- Q. That's correct.
- 4 A. (Witness Lecker) I think that it's
- 5 fairly typical of all emergencies that people
- 6 begin responding on warning, not on the detection
- 7 of the actual agent, if you like.
- If we hear a hurricane warning in
- 9 Florida, or a flood warning, the hurricane isn't
- 10 there, or the flood hasn't begun, but we begin to
- 11 respond to the emergency based on the warning.
- 12 And that's typical of all emergencies.
- 13 So I think that people will respond to the
- 14 information, not necessarily the visibility, if
- 15 you like, of the agent.
- 16 Q. Dr. Lecker, similarly a question was
- 17 directed to Dr. Dynes as to whether the
- 18 characteristics of the agent make a difference in
- 19 terms of how the emergency response might occur.
- 20 Do you have anything additional that
- 21 you would like to add to Dr. Dynes's response?
- 22 A. (Witness Lecker) No. Just to confirm
- 23 what he said. The literature suggests, and all
- 24 evidences from natural and man-made disasters show,
- 25 that people's responses are fairly characteristic,

- 1 regardless of the nature of the agent. The
- 2 sequence of the responses, the stages of those
- 3 responses, are fairly typical of people, of human
- 4 nature, not necessarily of the nature of the
- 5 emergency. It holds for wartime, it holds for
- 6 flood, hurricanes, et cetera.
- 7 Q. Gentlemen,, Ms. Posner asked you some
- 8 questions about a large number of people who
- 9 allegedly left the Three Mile Island area despite
- 10 the fact that they were not among the group that
- 11 was advised to depart.
- 12 First I would ask whether there was
- 13 an order, to your knowledge, issued at Three Mile
- 14 Island directing people not to leave?
- A. (Witness Lecker) To my knowledge,
- 16 there was no such directive. In other words,
- 17 people were not told that they must stay, and so
- 18 they were given the freedom, if you like, to act
- 19 on their own discretion, and if they chose to
- 20 leave, they left. That doesn't surprise me.
- 21 The literature on evacuations shows
- 22 that in any emergency there may be people who
- 23 leave on their own discretion, there may be people
- 24 who leave on order, there's evacuation by default.
- 25 It doesn't surprise me that more people left in

- the absence of an order directing them to stay.
- JUDGE GLEASON: Excuse me just a
- 3 minute. There was not an order directing them to
- 4 stay, but was there an order saying, a suggestion
- 5 saying, they could leave or stay? Can you respond
- 5 to that
- 7 THE WITNESS: (Witness Dynes) Sure.
- 3 There was what was couched as an advisory
- 9 suggesting that it would be appropriate for
- 10 children under 5 and pregnant women to leave the
- 11 area. It was couched as an advisory at that
- 12 particular time.
- 13 I think that one other important
- 14 point about TMI, one has to remember the context
- 15 in which this occurred. That advisory, to my
- 16 recollection, occurred on a Friday afternoon. It
- 17 was broadcast at that particular time.
- 18 Earlier there had been the indication
- 19 that schools would not be open on Monday, and
- 20 Friday afternoon, in fact, if you knew the school
- 21 was not going to be open on Monday, the fact that
- 22 at least for many people Saturday is not a workday,
- 23 a number of people took the opportunity to spend
- 24 the weekend elsewhere. In other words, it was the
- 25 first good weekend of the spring, and many people

- 1 left.
- Now, one can essentially -- when one
- 3 looks back on it, these people are counted as
- 4 evacuees. A lot of them simply went to Ocean City
- 5 or went to visit relatives because they were
- 6 released from certain obligations.
- 7 So the point I am making here, there
- 8 were a number of indications. The advisory was the
- 9 only official thing, so that coming up to a
- 10 weekend a number of people simply left for the
- 11 weekend, and now looking back on it these people
- 12 get counted as evacuees.
- JUDGE GLEASON: Was there any post
- 14 weekend interviews done sampling those people that
- 15 left as to whether they were just vacationing or
- 16 left in light of the concern about the safety of
- 17 the plant?
- 18 WITNESS: (Witness Dynes) I am
- 19 trying 1. Ak. I think the best study was
- 20 probably done with Mount and West, and I think
- 21 there was some indication -- the problem is
- 22 untangling some of these things.
- 23 In other words, there's another
- 24 category of what some people call evacuation by
- 25 invitation. In other words, a relative might call

- 1 and say, "Hey, something is going on. Why don't
- 2 you come for the weekend?"
- 3 So it's a mixed motive. A number of
- 4 factors went into it. They felt well, it might be
- 5 safer to leave at that time, plus the fact they
- 6 hadn't seen the relatives. So all of these things
- 7 enter in.
- JUDGE GLEASON: But was that assessed?
- 9 THE WITNESS: (Witness Dynes)
- 10 There were studies which looked, I think which
- 11 retrospectively asked the people for the reason
- 12 for their evacuation, or for leaving at that
- 13 particular point. And most of them reflect
- 14 multiple motives. They say, "Well, I got out."
- 15 Q. Do you gentlemen believe that there
- 16 would be a difference in the public's response
- 17 between a situation in which certain people were
- 18 advised to leave, but that people were not ordered
- 19 to stay, and a situation in which people were
- 20 actually ordered to stay?
- 21 A. (Witness Lecker) Oh, I think there
- 22 would be a significant difference. Again going to
- 23 the studies that have been done about people's
- 24 behavior in emergencies, if an authority announces
- 25 that your best chance of survival is to stay in

- the house, close the windows, go into the basement,
- 2 or do anything else, and again if the literature
- 3 says you accept the fact that this is a real
- 4 emergency, then at that point you will be more
- 5 inclined, or very highly inclined, to accept that
- 6 recommendation.
- 7 People's behavior under emergency,
- 8 and what we talked about earlier, the regression
- 9 and the compliance with authority, in large part
- 10 depends upon the fact that authority is issuing
- 11 clear directives saying that this is the best
- 12 chance to reducing the danger.
- To my knowledge there was never
- 14 anything like that said. Nobody said, "Stay home,
- 15 don't go visit Aunt Minnie in Philadelphia."
- 16 Q. Dr. Dynes, was there a detailed
- 17 evacuation plan for the area around Three Mile
- 18 Island at the time of that accident?
- 19 A. (Witness Dynes) No. Planning was
- 20 sporadic and erratic at that time.
- 21 Q. Dr. Lecker, I believe the Board asked
- 22 you some questions about what brought you to TMI,
- 23 and I believe you testified in response to that
- 24 question that it was primarily an invitation from
- 25 the utility to come in and do some work in

- 1 connection with the plant workers.
- 2 Have there been situations in which
- 3 you have done work at other nuclear plant sites
- 4 that was not so limited?
- 5 A. (Witness Lecker) Yes. One, in
- 6 particular, in which we were invited to advise
- 7 Pacific Gas and Electric Company on a number of
- 8 factors having to do with their own employees, and
- 9 the public's attitude toward the start up of the
- 10 Diablo Canyon plant.
- In that situation we did some fairly
- 12 formal interviews and surveys of employees, and
- 13 other individuals who were not employees, and then
- 14 we did some other work in the communities, and
- 15 formulated opinions and recommendations to
- 16 transmit to management of the Pacific Gas and
- 17 Electric.
- 18 Q. Have you done any work in the area of
- 19 community planning outside of the radiological
- 20 area?
- 21 A. (Witness Lecker) Oh, by all means.
- 22 Both inside and outside of government, most
- 23 notable being that I was a founding member of a
- 24 program called the Portage Program, which is a
- 25 drug dependency program in Canada, the largest one

- 1 in Canada. I and a few other people started that
- 2 program in my living room, and extended to involve
- 3 the entire community of the City of Montreal, and
- 4 now I believe it's a nationwide program.
- I have also done community planning
- 6 as Assistant Commissioner for Children's Services
- 7 for the State of New York, in which I brought
- 8 community and government forces together in
- 9 support of children's services, and at one point
- 10 in support of solving the problems that existed at
- 11 Willowbrook Home for the retarded.
- 12 Q. Dr. Dynes, my final question is
- 13 directed to you.
- Ms. Posner asked a question about a
- 15 study done by I believe it was Dr. Kautz at Three
- 16 Mile Island, and I believe there was another study
- 17 done by somebody named Maxwell at Three Mile
- 18 Island, and those questions were directed
- 19 principally to Dr. Lecker.
- I am wondering if you have any
- 21 familiarity with either or both of those studies,
- 22 and whether you wish to comment.
- A. (Witness Dynes) I could comment on
- 24 the study by Maxwell if I recall it correctly. It
- 25 was used in the context here of an observation

- 1 that there may have been some people who -- a
- 2 personnel shortage at the hospital. I believe he
- 3 was writing from Hershey.
- 4 This was a very complicated issue,
- 5 and it was simply an observation, and I am not
- 6 sure what data it was based on, but one of the
- 7 problems with that type of observation is that one
- 8 doesn't know where it comes from, but it gets
- 9 quoted in a number of places.
- 10 Let me give you some reasons to
- 11 suggest that that might be a wrong observation.
- 12 Generally I found in my research, my
- 13 own research, in looking at a number of people in
- 14 emergency situations, that particularly when you
- 15 study hospitals, with due deference to Dr. Lecker
- 16 here, physicians are not very good informants
- 17 about what goes on in a hospital.
- 18 In order to understand staffing, in
- 19 order to understand a variety of other things, you
- 20 have to talk to nurses, you have to talk to
- 21 essentially members of the organization, because
- 22 in any organization people perceive different
- 23 things at different levels.
- It is a little puzzling, that
- 25 particular study, along that line which suggested

- 1 personnel office.
- 2 But I think if you look at the
- 3 pattern of behavior in a wide variety of
- 4 situations where you have -- the general problem
- 5 really is too many people in that case, because
- 6 you have people that you don't need, and who are
- 7 there, and sometimes they get in the way of the
- 8 others. So the hospital had no load at that
- 9 particular point, so it's difficult for me to
- 10 understand. On any daily basis, I would suspect
- 11 there are certain people who don't report to the
- 12 hospital.
- 13 A. (Witness Lecker) I can add to that
- 14 that following Three Mile, at the behest of
- 15 Metropolitan Edison, my group was prepared to
- 16 offer additional resources to the two mental
- 17 health groups that serve the area, and I called
- 18 the director of both institutions and said, "Are
- 19 you experiencing increase in patient load, or more
- 20 severity? We can help you staff up quickly."
- 21 And there were no takers. For two
- 22 weeks there was no request for any additional help
- 23 that Metropolitan Edison would have been willing
- 24 to fund in psychiatrists or psychologists or other
- 25 mental health workers.

- So there didn't appear to be any run
- 2 on the facilities, any need for increased staff,
- 3 or any shortage of staff, if you like, by
- 4 inference. People who needed to be there were
- 5 there.
- JUDGE PARIS: You say in two weeks
- 7 there was no request. What happened after two
- 8 weeks, did you leave?
- 9 THE WITNESS: (Witness Lecker) Yes.
- 10 Our stay there in that formal sense was over, and
- 11 we remain as consultants.
- MR. PIKUS: Your Honor, I thought
- 13 that was my last question, but Dr. Dynes's
- 14 response has prompted an additional question.
- 15 Q. Dr. Dynes, you referred to a problem
- 16 of emergency workers showing up even though they
- 17 are not requested. There has been some testimony
- 18 in this proceeding concerned with the possibility
- 19 that the phone lines might be tied up, and police
- 20 chiefs might not be able to get hold of their
- 21 patrolman at home, and fire chiefs might have
- 22 problems, and there might be similar problems with
- 23 emergency workers.
- Do you believe that these kinds of
- 25 people would be among those groups that you have

- 1 referred to in your experience who would show up
- 2 on the job even though they were not requested to
- 3 do so?
- 4 A. (Witness Dynes) I think I understand
- 5 the context of your question.
- In other words, at least one pattern,
- 7 as far as emergency workers is concerned, might be,
- 8 for example, if they are home, and the emergency
- 9 would occur, would be to contact people to see
- 10 whether they are needed. They simply may wait
- 11 until they are notified if, within the planning,
- 12 one would essentially have a notification to "stay
- 13 at home until we contact you."
- 14 In some instances where communication
- 15 might be confused, they may show up and say, "Do
- 16 you need me?"
- Sc all of those things can work, and
- 18 it's probably a more effective plan for people to
- 19 stay, if you will, stay put until they know they
- 20 are needed within a specific type of tasks along
- 21 that lines.
- The fact that people don't
- 23 immediately run to work doesn't mean they are not
- 24 willing to help.
- MR. PIKUS: I have no questions. I

- 1 believe Mr. Brandenburg has some.
- 2 MR. BRANDENBURG: I have two
- 3 questions.
- 4 REDIRECT EXAMINATION
- 5 BY MR. BRANDENBURG:
- 6 Q. Both of you, on cross examination you
- 7 were asked a number of questions about the value
- 8 of attitude surveys that had been conducted on
- 9 Long Island and elsewhere for predicting the
- 10 response in the event of radiological emergency.
- 11 My question is based on your review of the
- 12 literature and your knowledge of emergency
- 13 response behavior.
- 14 Of what value are such attitude
- 15 surveys to predict the at behavior of the public
- 16 in an actual radiological emergency?
- 17 A. (Witness Dynes) Well, I think
- 18 attitude studies are valuable in studying
- 19 attitudes. They are not too useful in essentially
- 20 studying complex behaviors that might be required
- 21 two or three years hence.
- The other thing is that many
- 23 attitudes, many questionnaires are constructed by
- 24 people who have had very little experience in
- 25 emergencies, and therefore they tend to structure

- 1 questions which simplify the situation that they
- 2 think they are getting at.
- In other words, if you ask a simple
- 4 question you will get a simple answer. But that's
- 5 not necessarily a prediction of behavior.
- If I can use an example, if you have
- 7 a questionaire and ask people if they enjoy
- 8 playing polo or fox hunting, and they say no,
- 9 often you can conclude that they have no leisure.
- 10 You need to ask more questions on that in a
- 11 variety of situations.
- 12 So many of the questions are
- 13 formulated in simplistic fashion, which almost
- 14 move you toward particular answers.
- 15 If you ask, for example, "If you are
- 16 really forced with a choice between family and
- 17 something else, which would you choose?"
- 18 It's obvious which you would choose
- 19 along that line. But that has very little
- 20 relationship to a situation at sometime later in
- 21 terms of how you would behave. So I think in terms --
- 22 the best clue for behavior in emergencies is
- 23 locking at behavior in emergencies, and that's
- 24 what I am trying to do.
- 25 A. (Witness Lecker) Just to amplify that,

- 1 track record is certainly the best predictor. But
- 2 also if you look at the studies of bystander
- 3 behavior, studies by Clark, Shotler, Bickline,
- 4 just three authors I can site, what those studies
- 5 show is that an essential ingredient of a person's
- 6 constructive response is that the person felt this
- 7 was an authentic emergency, and my help is truly
- 8 needed.
- 9 The person has to really believe in
- 10 the authenticity of the situation. An attitude
- 11 survey is not very authentic. What might you do if
- 12 this and if that.
- Have you ever read an attitude survey?
- 14 They are so hypothetical, the person's response
- 15 pattern would be in no way similar to what they
- 16 would be like in a true authentic emergency.
- 17 If we study persons who have been in
- 18 emergencies, and say, "Why did you jump in the
- 19 river and save that man?"
- 20 He says, "Well, I had to. I was the
- 21 only one there, and I saw him drowning."
- 22 Authenticity is the -- they don't
- 23 have an aura of reality.
- JUDGE GLEASON: Why do they conduct
- 25 such surveys?

- THE WITNESS: (Witness Lecker) I 1 am not a sociologist, and I don't believe in them, 2 frankly. 3 JUDGE GLEASON: Do you have a comment 4 5 on that. 6 THE WITNESS: (Witness Dynes) Well, I think surveys have some value, but I would agree that they are not good predictors of behavior. 8 Sometimes they are predictors of 9 behavior that might occur tomorrow, that one has 10 thought about. If you have political polling, for 11 example, if you ask me the day before election who 12 I am going to vote for for president, I have been 13 thinking about that for a long time, there 14 probably would be a high correlation. 15 But if you ask me what I might do 16 five years from now in a particular situation, 17 without any other context, I wouldn't have a clue? 18 THE WITNESS: (Witness Lecker) 19 Critical difference, too, is that a political 20 situation is not a very different situation from 21 the norm. The attitude that you have today is more 22 predictive of tomorrow, because tomorrow won't be 23 very different from today. 24
- 25 If tomorrow there was a holocaust, or

- 1 something like that, and you were really convinced
- 2 that now life is changed, all bets are off, this
- 3 is not a normal situation, there really is an
- 4 emergency, that is so disconnected from today, and
- 5 the attitudes you have today, that you can't say
- 5 that today will then truly predict tomorrow.
- 7 THE WITNESS: (Witness Dynes) One
- 8 other thing that is important is that behavior, by
- 9 and large, is a situation in the sense that it's
- in terms of the particular situation that you are
- 11 in.
- 12 I recall the old military standard
- 13 saying that everything depends on the situation
- 14 and the terrain. So it's hard to predict the
- 15 situation and the terrain from a simple question
- 16 five years before the event.
- JUDGE GLEASON: Well, just so I can
- 18 get your comment on the record as a sociologist,
- 19 you are stating that attitude surveys that relate
- 20 to what people will do in the event of emergencies
- 21 are worthless?
- 22 THE WITNESS: (Witness Dynes) I
- 23 think they have a very limited value, yes.
- JUDGE GLEASON: Thank you.
- 25 O. My second and last question, Mr.

- 1 Chairman, relates to the line of questioning that
- 2 you received about the inadvisability of radiation
- 3 and the impact that would have on the anticipated
- 4 behavior in the event of a radiological emergency.
- I would like to ask you the other
- 6 half of that situation, if you will, and that is
- 7 what effect you would expect the latency of the
- 8 effects, physiological effects, of radiation
- 9 exposure to have on behavioral response in the
- 10 event of an actual emergency at a nuclear power
- 11 plant?
- 12 A. (Witness Lecker) If I can respond,
- 13 again I don't think any effect. We are dealing
- 14 both in the last question and this one with trying
- 15 to merge two totally dissimilar states.
- 16 Can you predict somebody's attitude
- 17 from peacetime into wartime, and from nonemergency
- 18 into emergency? Will somebody behave differently
- 19 today because he anticipates five years from today
- 20 he will have a radiation effect? I don't think so.
- Just to repeat Dr. Dynes's statement,
- 22 response and situation are different. I might
- 23 believe an attitude survey if it was done in the
- 24 context of an emergency.
- 25 Q. In the event of a forest fire, and

- 1 you see the flame, and you mentioned at Buffalo
- 2 Creek you said the wall of water, and the mud, et
- 3 cetera, et cetera. On cross examination you were
- 4 asked a number of questions about you can't see
- 5 the radiation. How is that going to affect people's
- 6 response.
- 7 My question relates to the latency
- 8 effects. If we assume that a population did
- 9 receive some exposure to radiation, but, as we
- 10 know, even under the acute radiation symdrome
- 11 those symptoms manifest themselves a week, two
- 12 weeks, later. However, the initial response to the
- 13 emergency is not one where you feel the symptoms
- 14 of the peril already.
- 15 What effect does the latency of the
- 16 physiological effects of the hazard have upon the
- 17 anticipated behaviour response of people in the
- 18 actual stages of the emergency?
- 19 A. (Witness Lecker) I don't think there
- 20 would be any difference at all as far as the
- 21 latent effect. I think people tend to defer those
- 22 things.
- The same is true of smoking.
- 24 Cigarettes are bad for your health. Well, a
- 25 person still lights up a cigarette. People tend to,

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especially because of the inadvisability of the
 1
 2
     effect and the latency of the effect, that he
     would not necessarily be affected in terms of
 3
     their behavior at that time.
                  MR. BRANDENBURG: That's all I have,
 5
 6
     Mr. Chairman.
 7
                  JUDGE PARIS: I have a few questions
     for the witnesses, but first I want to take note
 8
     of a contribution that Dr. Dynes has made to this
 9
10
     proceeding at the bottom of page 5 and top of page
     6 of his testimony.
11
12
                  Dr. Dynes, we have had a number of
     people tell us that an accident could occur when
13
14
     an evacuation was in progress that would impede
     evacuation, but you are the first person to
15
     suggest that the police chiefs might have a way of
16
     getting out of this.
17
18
                  (Testimony continues on next page.
      No context lost.)
19
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- (Witness Dynes) I could add to that. 1 2 JUDGE PARIS: On a more serious vein, 3 on the top of page eight, you say, "Emergency personnel generally perform the task and know that 4 there their fellow emergency workers will care for 5 5 their families." 7 Can you give us any examples of this actually being observed? 8 9 MR. DYNES: Sure. One example that 10 -- what I was trying to point at, that very 11 often in an emergency organizations, there develops a sort of a network of help among 12 13 families, among policemen, for example, that maybe 14 two families live in the area in which they share 15 certain help along that line. 16 So this is sort of an informal thing 17 that is developed or it may be that in emergencies, I can recall, let's say, police departments where 18 19 you have a network and you might have a sudden impact of -- I don't know -- an earthquake, and 20 say to the guy on the other side of the street, 21 you know, "Hey, when you go down my street, look 22 and see if my house is there and the family is 23 24 there."
 - TAYLOE ASSOCIATES

So there's an informal necwork which

- 1 tends to reduce the effect.
- JUDGE PARIS: Are these hypotheticals
- 3 or can you give us some specific examples?
- 4 MR. DYNES: Sure. I just gave you
- 5 two. Both of them occurred in the Alaskian
- 6 earthquake
- JUDGE PARIS: I see. Okay?
- 8 MR. DYNES: There are other examples.
- 9 They just happen to come to mind.
- JUDGE PARIS: Okay. At the bottom of
- 11 the same page, bottom of page eight, do you know
- 12 how large an area was evacuated in Mississaugu?
- MR. DYNES: In terms of square miles?
- 14 JUDGE PARIS: Yes. Or radius around
- 15 the event. What sort of -- first let me ask you
- 16 this: I'm unfamiliar with the Mississaugu
- 17 accident. Was this a sizeable city?
- MR. DYNES: Well, it's essentially a
- 19 suburban area of Toronto. It's a part of the
- 20 Toronto metropolitan area.
- JUDGE PARIS: Fairly heavily
- 22 populated, densely populated?
- MR. DYNES: Yes, in that whole area,
- 24 right. I wouldn't take a guess on Mississaugu,
- 25 the size of it. I could probably get that for you

- 1 in terms of square miles.
- JUDGE PARIS: Well, 220,000 people is
- 3 quite a sizeable number of people. So I guess it
- 4 was a fairly large area.
- 5 MR. DYNES: Yes.
- JUDGE PARIS: Did the evacuation of
- 7 that many people require 24 hours or how did the
- 8 evacuation proceed?
- 9 MR. DYNES: In this case, it was --
- 10 it was a train derailment in which there were
- 11 certain toxic -- chlorine among things -- but not
- 12 the only one, and it was somewhat of a progressive
- 13 evacuation.
- In other words, that they had to make
- 15 judgments -- there's the initial judgment of
- 16 getting the people out from near the derailment
- 17 itself, and then, as I recall, at a later point
- 18 when there was some possibility of a chlorine gas
- 19 release, they moved on out from that particular
- 20 area.
- As I recall the evacuation, it was
- 22 essentially a somewhat increasing one at that
- 23 particular time. It occurred at night, too, by
- 24 the way.
- JUDGE PARIS: I see. With regard to

- the evacuation of over 1 million people from
- 2 London in 1939, September, 1939, can you give me
- 3 some details about the circumstances surrounding
- 4 that? How much warning did they have and how long
- 5 did it take to evacuate?
- 6 MR. DYNES: That was a period of time
- 7 of essentially the buzz bombing of London. At
- 8 that point, there was, at some particular point,
- 9 an instruction for essentially women and children
- 10 to evacuate the city, to go out into the country,
- 11 along that line.
- 12 So that this is a massive -- this
- is a massive number. I don't -- the other thing,
- 14 perhaps -- I don't know whether it's relevant
- 15 here but I'll make it an observation.
- Generally, they found later on that
- 17 many people came back because they were willing to
- 18 put up with the hazard of the buzz bomb by taking
- 19 other types of preventative action, in other words
- 20 they'd rather stay in town than go in the shelter,
- 21 go underground.
- JUDGE PARIS: Was this a precipitous
- 23 evacuation or a gradual one?
- MR. DYNES: In this case, it was a
- 25 gradual one, right.

- JUDGE PARIS: I see. On page ten in 1 your conclusions, you say, "Empirical evidence 2 suggests the responses to radiological agents 3 follow similar patterns to those involving other 4 nonradiological agents." 5 6 I guess "empirical evidence" is mainly the TMI experience; is that right? 7 8 MR. DYNES: Well, that would 9 certainly be a major thing. There are a few other 10 incidents which you would have to adapt. 11 For example, in, I think it was, 1963, 12 there was an explosion in San Antonio, which I 13 don't think really it approximated the mushroom 14 cloud at that particular time, and there wasn't any radiation effect. 15 16 There are the examples Hiroshima and 17 Nagasaki, if you sort those out, but the point 18 here is that the evidence, I suppose, mostly from TMI, the evidence that one has from TMI, it looks 19 20 very similar to other types of behavior, and in 21 certain ways, fortunately, we don't have too many 22 cases to make those judgments. JUDGE PARIS: Okay. Dr. Lecker, I 23 24 have a few questions for you.
- 25 On page 4 you mentioned the Tavistock

- 1 Human Relations Literature, and I'm unfamiliar
- 2 with the Tavistock Human Relations Literature.
- 3 Can you tell me that is?
- 4 MR. LECKER: Well, these are a series
- of workshops held over the years, some of the
- 6 major contributors, A. K. Rice and Miller,
- 7 Margaret Reosh, (phonetic) Fred Rutlich (phonetic)
- 8 and Boris Astrocan (phonetic) at Yale.
- 9 Basically, the study was how groups
- 10 respond under stress with or without structure,
- 11 and, if you like, what kind of structure will
- 12 spontaneously evolve if there is no structure.
- I think that's the major contribution,
- 14 showing that when you take a group of individuals
- 15 and they can be professors of psychology and
- 16 sociology and so on and you give them no structure
- 17 and you give them a task to perform, that certain
- 18 anxieties arise and certain characteristic
- 19 patterns begin to evolve, leadership patterns,
- 20 scape-goating patterns.
- The group begins to require that
- 22 certain structures such as time boundaries and
- 23 physical boundaries be respected and, in effect,
- 24 it seems to be an organic part of group behavior
- 25 that certain things will happen, whether it's in a

- l laboratory situation, in their studies or in
- 2 actual situation.
- 3 When we translate the lessons learned
- 4 in the Tavistock Human Relations Literature to
- 5 actual observations of, say, spontaneous
- 6 evacuations like the Mississauga or any other
- 7 major incidents, those behaviors keep on
- 8 replicating themself, whether they are studying a
- 9 hospital or any other circumstance where a large
- 10 group response is involved.
- 11 These particular factors begin to
- 12 emerge. That leadership becomes very important.
- 13 People tend to invest more in leaders the more
- 14 stress that there is. Leaders who are not
- 15 respected in a normal situation are more respected
- 16 in a crisis situation that rules and structures
- 17 tend to decrease group anxiety and if there
- 18 aren't rules, people begin making rules and begin
- 19 organizing themselves.
- 20 That's basically what that literature
- 21 demonstrates.
- JUDGE PARIS: I see. So these were
- 23 workshops that developed this information?
- MR. LECKER: First as workshops.
- 25 Then the theory applied to certain circumstances

- 1 such as observations of hospitals and staff and
- 2 corporations and situations such as those.
- JUDGE PARIS: I see. Okay. Thank
- 4 you.
- 5 On page seven in the bottom paragraph,
- 6 you refer to the fact that off-duty plant
- 7 personnel went back at TMI in order to help out.
- 8 Do you have any information about the
- 9 behavior of local police officers or other police
- 10 officers?
- MR. LECKER: No. The only
- 12 information I have has to do with the school
- 13 teachers which I mentioned.
- JUDGE PARIS: All right. Go ahead
- 15 and tell me about the school children. I was
- 16 unaware that there had been an evacuation of
- 17 school children.
- 18 MR. LECKER: No, there was an
- 19 evacuation. I spoke to the superintendent of
- 20 schoolings to see -- there was a dismissal, I
- 21 guess, it was on that Friday that Dr. Dynes
- 22 mentioned.
- JUDGE PARIS: An early dismissal?
- MR. LECKER: I believe so.
- MR. PICKUS: The O'Rourke plan.

MR. LECKER: In any case, that was 1 some days after the accident. I really wanted to 2 know whether he was -- whether he experienced a 3 failure of teachers to report to work, for example, right after the accident or any kind of 5 disorganization when finally they decided on this early dismissal on Friday and found none of that, that the teachers remained at their posts. They reported to work. The dismissal went in a very 9 organized and orderly fashion, and I would imagine 1.0 that would be the case in any similar situation, 11 that being the worst that we can imagine because 12 there was no plan and there was a great deal of 13 ambiguity. 14 JUDGE PARIS: Dr. Dynes, can you 15 contribute any information about the early 16 17 dismissal at TMI? MR. DYNES: No. It's my recollection 18 -- of the schools? 19 JUDGE PARIS: Yes. 20 MR. DYNES: It's my recollection that 21 around noon or 1:00 that day, there was some 22 discussion throughout Thursday about evacuation 23 and Friday morning about it, and I think there was 24 a decision to essentially close the schools early. 25

- 1 I think it might have been 1:00, something along
- 2 that line.
- In addition, I think there was the
- 4 notion that at that particular point they weren't
- 5 sure that they were going to reopen on Monday, so
- 6 they closed early, and essentially, released the
- 7 kids with the promise or the seeming certainty
- 8 that school wouldn't be out.
- 9 This accounted, I think, for a large
- 10 number of people leaving the area.
- 11 JUDGE PARIS: Are you aware of any
- 12 problems that the early release generated?
- MR. DYNES: No. It was a normal
- 14 school day as far as, I mean, normal in the sense
- 15 that they followed their regular patterns.
- JUDGE PARIS: Finally, Dr. Lecker,
- 17 one question for you: Do you think fear of
- 18 nuclear power is a phobia?
- MR. LECKER: No, I don't see it as a
- 20 phobia in the strict definition of a phobia which
- 21 really is that somebody is afraid of something
- 22 else and that fear of something else is translated
- 23 or displaced onto nuclear power.
- I will say that fear of nuclear power
- 25 to the extent it sometimes is seen is an

- l exaggerated fear based on really a failure to have
- 2 adequate information.
- JUDGE PARIS: Okay. Thank you very
- 4 much, gentleman.
- JUDGE SHON: In several cases, both
- 6 of you gentlemen have told us that your principal
- 7 grounds for believing that people will behave
- 8 normally confronted with the nuclear power plant
- 9 accident is the experience at TMI or at least --
- 10 the experience at TMI and an anology to other
- 11 kinds of emergencies; is that correct?
- MR. LECKER: Correct.
- MR. DYNES: I think it's more an
- 14 anology. I think it's observations in a number of
- 15 cases.
- JUDGE SHON: Right. However, one of
- 17 the important points that the Intervenors had
- 18 stressed, and I want to get that through both the
- 19 witnesses, also, is that they believe that these
- 20 two are fundamentally very different sorts of
- 21 things and that people will react to them very
- 22 differently.
- The chief instance where you have a
- 24 nuclear power plant instance is TMI, surely, but
- 25 TMI was different from the sort of thing that at

- l least might be envisioned in a worst-cast accident
- 2 here.
- I don't mean worst case, just the
- 4 police chiefs being on vacation. TMI involved
- 5 evacuation only as a precaution before a potential
- 6 means.
- 7 It has been suggested and, indeed,
- 8 accidents have been analyzed by the witnesses that
- 9 appear before us wherein people would meet to get
- 10 out of an area that either already was
- 11 contaminated or was in an immediate danger of
- 12 being contaminated.
- Wouldn't this make a substantial
- 14 difference? I mean it makes a difference whether
- 15 you announce to this group here that, "There
- 16 might be a fire here in a few hours. let's leave,"
- 17 or the flames come bursting in from the door.
- 18 Wouldn't this drastically alter the
- 19 reactions?
- 20 MR. LECKER: I think there's good
- 21 literature to suggest that people's behavior even
- 22 in that kind of situation given, say, a fire, a
- 23 flood or whateverthat people's behavior would not
- 24 deteriorate except only in one instance, that the
- 25 scenario was that there was confusion, say, in the

- 1 ranks of leadership and that they felt that their
- 2 only exit, if you like, from the situation was
- 3 about to be occluded, and that's been studied in
- 4 other disasters, that that's probably the only
- 5 scenario one can depict.
- 6 We can imagine the governor getting
- 7 on the radio or the county supervisor getting on
- 8 and being very unsure of what he's recommending,
- 9 that they also felt -- or the Tappan Zee Bridge
- 10 fell down or something like that, that their
- 11 egress from the area combined with it, was blocked
- 12 combined with a confusion from leadership.
- 13 Otherwise, I think that would would
- 14 see organized behavior projecting from other
- 15 disasters into this one.
- JUDGE SHON: Secondly, we have been
- 17 told again primarily by the Intervenors' witnesses
- 18 and it has been pointed out through their
- 19 questions in cross-examination that there is at
- 20 least one substantial quantitative difference
- 21 between a group's reaction to a radiation incident
- 22 and a group's reaction to other incidents in that
- 23 comparing TMI to things even like Times Beach in
- 24 the case of radiation, more people leave than are
- 25 told to leave; and in the case of other incidents,

- 1 people are reluctant to leave.
- 2 You tell them there's a flood or a
- 3 hurricane coming, they'll just stay here when they
- 4 are told to leave.
- 5 Is it quantitatively true and does it
- 6 demonstrate a real difference in the two kinds of
- 7 incidents?
- MR. DYNES: No. I don't think the
- 9 evacuation pattern was different. I think as I
- 10 have indicated, some of the confusion has occurred
- in people who were looking for the TMI evacuation
- 12 who have never looked at any other evacuation.
- 13 They don't have any baseline to
- 14 consider. So they have assumed that, for example,
- 15 that the distance that people went was somehow
- 16 abnormal. It was abnormal only because it was a
- 17 weekend. In other words, people combined it with
- 18 other things.
- So I don't think the pattern is
- 20 really any different along that line. I think
- 21 that there's some people who have suddenly become
- 22 interested in emergencies and they don't have the
- 23 background in terms of the knowledge of ranks.
- 24 So they understand -- they look at
- 25 things that are typical and define them as

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abnormal.
 1
                   JUDGE SHON: Did you have something
 2
      more?
 3
                   MR. LECKER: No, not really.
 4
                   JUDGE SHON: Lastly, the name of Dr.
 5
      Kye Ericson came up. You or one of the other
      gentleman -- I think Dr. Lifton in particular --
      quoted earlier work by Kye Ericson, a book by him
      in which you alledged that he said, in effect, "All
9
      emergencies are the same or responses are very
10
      similar."
11
12
                   Have you read his testimony before us
13
      in this case?
14
                   MR. LECKER: I haven't read his
      testimony before you, but I was here during that
15
      testimony. I have read his prefile testimony, and
16
      I have his book here if you would like me to cite
17
      the passage exactly, or to paraphrase it, and the
18
19
      book is called "Everything In Its Path".
20
                   In his conclusions in the book, he
      says that -- his primary interest was to study --
21
      or one of his primary interests really was to
22
      understand and help us all understand what would
23
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He said that naturally we can't --

happen in the event of nuclear war.

24

25

- 1 "We don't have such laboratories available but
- 2 fortunately nature regularly provides us with
- 3 disasters," and that there is great merit.
- 4 The implication is from extrapolating
- 5 from the natural disaster to the nuclear disaster.
- JUDGE SHON: But in his testimony, he
- 7 points out, rather, differences than the
- 8 similarities.
- 9 MR. LECKER: That confirms what Dr.
- 10 Dynes said that behavorial situation is specific.
- II JUDGE SHON: Thank you. I have no
- 12 other questions.
- MS. POTTERFIELD: Judge Shon, if it
- 14 please the Board, I would like a citation to that
- 15 passage in "Everything In Its Path".
- 16 JUDGE GLEASON: Yes. I was going to
- 17 ask for it. Could we have it?
- 18 MR. LECKER: Sure. Shall I --
- JUDGE GLEASON: Why don't you just
- 20 read the thing for the record.
- MS. POTTERFIELD: Tell us the page
- 22 number.
- MR. LECKER: This is "Everything In
- 24 Its Path" and I guess the publisher is Touchstone,
- 25 and at page 252, it says, "One cannot drop

experimental bombs on civilian populations in 1 2 order to create a laboratory for studies. So the 3 best available research strategy was to turn to human situations that most closely approximated atomic attacks. The obvious candidates were 5 5 disasters of one kind or another." And he goes on. 7 JUDGE SHON: Does he then say 8 anything further about whether or not the kind of disasters that are available can mimic or mock up 10 bombs? 11 MR. LECKER: Let me just continue reading for a little way. It says "Nature has a 12 way of providing such laboratories regularly. 13 Thus for a number of years, teams of social and 14 15 behavorial scientists were dispatched to the scenes of fires, hurricanes, floods, torrenadoes, 16 tidal waves and all other visitations that 17 disturbed the piece of mankind." 18 19 There is sections here and there throughout the book that suggest the same inference, that 20 this is the best way to understand what might 21 happen in the case of an atomic attack which is to 22 study hurricanes, fires, floods and, you know, 23 other natural manmade disasters. 24

25

JUDGE SHON: Thank you. I have no

- 1 other questions.
- JUDGE GLEASON: All right. Ms.
- 3 Potterfield?
- MS. POTTERFIELD: Yes, thank you,
- 5 Judge.
- JUDGE GLEASON: All right. The
- 7 witnesses are excused. Thank you gentlemen.
- 8 MR. LECKER: Thank you.
- 9 MR. PICKUS: Judge, would you like me
- 10 to call the panel that was subpoenaed here for
- 11 2:00?
- JUDGE GLEASON: I think so, unless
- 13 there's some reason for not proceeding?
- MR. PICKUS: Judge, the --
- JUDGE GLEASON: We always have a
- 16 problem in these proceedings where we have
- 17 witnesses available and it is not up to the Board
- 18 to make that determination. It's up to the
- 19 parties to have their witnesses available.
- MR. PICKUS: Well, they are here,
- 21 Judge, and I'd like to call them with the Board's
- 22 permission.
- 23 The Power Authority calls Mr. Phil
- 24 Schmer and Mr. Michael Scalpi to testify.
- JUDGE GLEASON: May I ask if these

- l are adverserial witnesses?
- 2 MR. PICKUS: These, your Honor, are
- 3 governmental witnesses who we have hoped would
- 4 appear through another vehicle. I quite frankly
- 5 don't have -- I expect that their testimony will
- 6 be basically as to what the state of emergency
- 7 planning is in the two counties that we haven't
- 8 heard from. They are not people within our
- 9 control, however.
- 10 What my plan is, Judge, is to do much
- 11 as Mr. Kaplan did when he subpoenaed inspector --
- JUDGE GLEASON: Yes, I understand
- 13 that.
- 14 Gentlemen, would you please come
- 15 forward and raise your right-hand so we can swear
- 16 you in.
- 17 Whereupon,
- 18 PHILIP SCHMER
- 19 MICHAEL SCALPI
- 20 were sworn in by the Administrative Law Judge and
- 21 testified as follows:
- MR. SCALPI: I had three pieces of
- 23 literature I'd like give out if I can. I would
- 24 like to submit --
- MR. PICKUS: Would the Board like to

- 1 swear the witnesses first?
- 2 JUDGE GLEASON: They have already
- 3 been sworn.
- 4 MR. PICKUS: Whatever the Board's
- 5 preference would be, Judge, I have no problem with
- 6 him distributing the literature.
- JUDGE GLEASON: We have no problems.
- MS. FLEISHER: Your Honor, excuse me.
- 9 I just filed today a cross-ex plan because we have
- 10 received nothing in writing from the Licensees
- 11 about their order of witnesses or the days that
- 12 they would be on.
- 13 It's one thing to announce that they
- 14 are subpoenaing a witness in the hope that they
- 15 will be here in time, but we did not have notice
- 16 that they would, and I would like to cross-examine
- 17 Mr. Schmer if I may.
- JUDGE GLEASON: We are going to
- 19 permit you to do that, Miss Fleisher. We are
- 20 going to permit you to cross-examine and we are
- 21 going to permit anybody to cross-examine but we
- 22 are proceeding.
- Now, we want to proceed in the way
- 24 you want to proceed.
- MR. PICKUS: Very well, Judge. May I

- 1 confer with the witness for just a moment and see
- 2 what these documents are?
- JUDGE GLEASON: Go ahead.
- 4 MR. PICKUS: Judge, Mr Scalpi would
- 5 like to have bound into the record in addition to
- 6 his testimony that he's given here a limited
- 7 appearance statement.
- I understand that in the past there's
- 9 been precident for disallowing a witness to
- 10 testify and to also give a limited appearance
- 11 statement.
- JUDGE GLEASON: That's a precident
- 13 which the Licensees have objected to.
- MR. PICKUS: Well, we have been
- 15 overruled, Judge.
- Let's put it this way: It's Mr.
- 17 Scalpi who wants to put this in.
- JUDGE GLEASON: Let's keep the record
- 19 straight and keep the record consistent. If you
- 20 have a statement you want to put in as a limited
- 21 appearance, we'll accept it as a limited
- 22 appearance statement.
- MS. POTTERFIELD: Judge, my only
- 24 problem is that we have never before had a witness
- 25 who has testified -- I assume the problem is

- 1 that he's testifying to the things that he knows
- 2 of his own personal knowledge and then wants to
- 3 put in a limited appearance as to the hearsay that
- 4 he has.
- I mean I don't understand.
- 6 MR. PICKUS: This is the first time I
- 7 have seen this statement.
- JUDGE GLEASON: I understand he's not
- 9 going to be testifying to this information except
- 10 in reference to cross-examination.
- MS. POTTERFIELD: So that, in fact,
- 12 it will be direct testimony instead of a limited
- 13 appearance?
- JUDGE GLEASON: Yes, that's right.
- 15 All this is, if I understand counsel, is a
- 16 statement by the witness that he would like to
- 17 have in the record as his statement under a
- 18 limited appearance format.
- 19 I see no objection to that but it
- 20 can't be use for any other purpose.
- 21 Would you like to see it?
- MS. POTTERFIELD: Yes, we would like
- 23 to see it.
- JUDGE GLEASON: Show her a copy.
- 25 DIRECT EXAMINATION

- 1 BY MR. PICKUS:
- 2 Q. Gentlemen, to try to make things go
- 3 quickly here, I'm going to direct questions to you,
- 4 and the same question is directed to both of you,
- 5 so if one of you would respond to the question
- 6 first and then the latter would then respond.
- 7 It's directed to both of you.
- JUDGE GLEASON: Yes. Let me say that
- 9 this statement, this limited appearance statement,
- 10 should be place into the record as a limited
- 11 appearance statement. Now you may proceed.
- MR. PICKUS: Thank you, Judge.
- 13 Q. Would each of you please state for
- 14 the record your name and business address?
- 15 A. (Witness Schmer) Phil Schmer, 255-275
- 16 Main Street, Goshen, New York, 10924.
- 17 O. Mr. Scalpi?
- 18 A. (Witness Scalpi) Michael Scalpi,
- 19 Civil Defense Director, Putnam County, Two County
- 20 Center, Carmel, New York 10512.
- Q. Mr. Schmer, what is your present
- 22 position of employment?
- 23 A. (Witness Schmer) My official title is
- 24 Assistant Director of Office of Natural Disaster
- 25 Civil Defense, Orange County.

O. In that capacity, are you the person 1 in day-to-day charge of emergency planning for 2 3 Orange County? A. (Witness Schmer) Yes, sir. 4 Q. Mr. Scalpi, could you please tell us 5 6 what your present employment position is? A. (Witness Scalpi) I'm the Civil Defense Director of Putnam County. Q. And are you similarly the person in 10 day-to-day charge of emergency planning for the 11 county? 12 Α. (Witness Scalpi) That's correct. 13 Q. Could you give us a brief rundown of 14 the former positions that you have held, Mr. Schmer? 15 16 A. (Witness Schmer) After finishing school, I went into the service for six years. 17 After leaving the service I worked 18 for the state government and finished 24 years of 19 service. 20 21 During that time I was a technician, radar repair, missle repair, this sort of thing 22 23 and held a commission in the reserves.

24

25

Q. Could you tell us what kind of

education, training and background you have had in

MICHAEL SCA.F.

OFFICE OF CIVIL DEFENSE

CAPMEL, NEW YORK

Phone h 3 , 1989

Michael Scalpi - Limited Appearance Statement for the Atomic Safety and Licensing Board

My name is Michael Scalpi and I am the Civil Defense Director for Putnam County. I have served in this capacity for over six years. In, that time I have attended numerous courses and seminars on the Federal and State level in Comprehensive Emergency Management including the Nuclear Regulatory Commission interagency course in Radiological Emergency Response Planning in Support of Fixed Nuclear Facilities on July 15th, 1978.

I feel this experience makes me qualified to appear before this body to express my view as a professional on the state of preparedness in regards to the Putnam County portion of the Indian Point Emergency Response Plan.

I have been working with the state and the utilities on emergency planning at Indian Point since January of 1980 and have found the work both rewarding and frustrating. We have worked with some of the best planners in the country on this project. We received Rev. 1 of the plan in August of 1981 and have done training with our services.

We have been working with the State Radiological Emergency Preparedness Group since May 3rd, 1982 for plan revisions resulting from exercise criticisms from FEMA, N.Y. State, and our County critique. As you can see from the post-exercise assessment, Putnam County received a very satisfactory rating. We believe these results came from studying the plan, training our services with the plan, and having respect for the plan.

Our services have had the opportunity to provide input in the plan and the revisions of the plan. My services do not have negative feelings on the workability of the plan.

We have found criticism of the plan from members of our Putnam County community complaining that they had no input in the planning process. These are all people who are potential evacuees and therefore would have very little to do besides evacuating. Nevertheless, they have been invited to submit their problems to the Civil Defense Officer either in writing or in person and as of this date not one person has come forth.

I can only come to one conclusion and that is that their only interest is in closing the plant regardless of a workable plan.

MICHAEL SCALPI Director

OFFICE OF CIVIL DEFENSE

CARMEL, NEW YORK

Michael Scalpi - Limited Appearance Statement for the Atomic Page 2 Safety and Licensing Board

I think it must be said that the utilities and the state have been cooperative to the point where there was nothing they wouldn't do to help us in this great effort. Their interest and sincerity was exemplary. Had we to do this over again, I would not have changed a single thing.

Sincerely,

Michael Scalpi

Civil Defense Director

MS:rc

- 1 emergency planning?
- A. (Witness Schmer) Wow.
- Q. You can summarize for us.
- 4 A. (Witness Schmer) Well, in the service
- 5 I went up through qualification for promotion for
- 6 field grade, you know, the service forces that
- 7 were required up through commander of general
- 8 staff.
- 9 On this particular job, since I have
- 10 been on the job, I have completed the federal
- 11 requirements for emergency planning which is
- 12 approximately eight weeks of resident schooling.
- 13 I have gone to at least one graduate
- 14 seminar. I have been to the RERO course in Las
- 15 Vegas, Nevada, for two weeks.
- 16 I took the Lowell University
- 17 radiological course which was two weeks and many
- 18 emergency planning courses at Battlecreek,
- 19 Michigan, at federal schools, this type of thing.
- 20 Q. How long have you been in your
- 21 present position with Orange County?
- 22 A. (Witness Schmer) It will be eight
- 23 years in two months.
- Q. Mr. Scalpi, may I direct the same
- 25 question to you? Could you tell us about your

- employment history and what kind of training and experience you have had in the area of emergency
- 3 planning?
- 4 A. (Witness Scalpi) I'm a retired
- 5 boatsmate, U.S. Navy, and in business myself for
- 6 about 15 years and I took this job about almost
- 7 seven years ago lacking a couple of months, and
- 8 pretty much attended the same schools that Mr.
- 9 Schmer attended, graduated at Battlecreek Staff
- 10 College Phase Four, Nuclear Regulatory School
- 11 prior to Three-Mile Island and numerous other
- 12 seminars and schools that we attended.
- 13 Q. Now, gentlemen, did there come a time
- 14 at which you initiated work either individually or
- 15 with others on a Radiological Emergency Response
- 16 Plan for your county in connection with the Indian
- 17 Point reactors?
- 18 A. (Witness Schmer) We became a little
- 19 concerned about radiation in 1975. Newspaper
- 20 articles started to appear, mostly pertaining to
- 21 transportation incidents involving radiation.
- 22 At this time, we conducted a public
- 23 seminar in our county; and to allay fears in the
- 24 latter part of 1975, we organized what I find out
- 25 to be was the first RERO team in this country,

- 1 Radiological Emergency Response Operations team.
- 2 My people have taken training at the
- 3 Las Vegas test site at similar courses. I have
- 4 already mentioned the Lowell University course,
- 5 many of the State radiological courses.
- 6 So we put together an emergency
- 7 response plan to respond to these types of things
- 8 in 1975.
- 9 About a year and a half later, we
- 10 started working with Con Ed to correlate some
- 11 activities, you know, for protection against the
- 12 type of incident at a nuclear reactor.
- 13 Of course, it didn't really get into
- 14 high gear until after the Three-Mile Island
- 15 incident.
- 16 Q. And what happened after the
- 17 Three-Mile Island incident?
- 18 A. (Witness Schmer) Well, I'm sure we
- 19 are all aware that at that time, the federal
- 20 government mandated planning for, you know,
- 21 offsite consequences. They did come up with what
- 22 I believe was a very unrealistic time frame to put
- 23 a plan in place.
- 24 The utilities contacted people like
- 25 Mr. Scalpi, myself, to assist them, realizing that

- 1 we could never put this type of a plan into place
- 2 in the short time frame that was given us.
- 3 They consented to hire consultants to
- 4 work with us.
- 5 We have been working with these
- 6 consultants with the utilities and with the State
- 7 ever since.
- 8 Q. Mr. Scalpi, Could I seek your answer
- 9 to those questions as well? Did there come a time
- 10 when you commenced work on the Radiological
- 11 Emergency Response Plan for Putnam County?
- 12 A. (Witness Scalpi) Well, in 1977, I
- 13 was very fortunate. I had a civil affairs brigade
- 14 with 105 Army officers in it, and about 20
- 15 enlisted men and they came to my county at my
- 16 request and done a whole plan for me on nuclear
- 17 war more or less.
- So when we went into this, to these
- 19 plans, after TMI, we already had a viable
- 20 up-to-date plan in my county that could be used
- 21 for almost everything.
- 22 So this was more or less in addition
- 23 to the plan that I had, though it was a separate
- 24 plan made by Parsons Brinkerhoff, and like Phil
- 25 says, we have been working on this plan for over

- 1 two years now, and actually, we are the people who
- 2 actually put the plan in operation, and we put who
- 3 goes with the plan, where they go and all this,
- 4 and it's a very -- it's a great document, down
- 5 to the point this plan -- we break it down to the
- 6 point where we pick up Mrs. Oshkosh in a
- 7 wheelchair in a van that has a hydraulic lift on
- 3 it, and take her someplace.
- 9 No plan that I have ever seen before
- in anything really details, goes down to that
- 11 detail but this plan does.
- 12 Q. Just to back up for a second,
- 13 gent: men, I believe both of you have made
- 14 reference to consultants who assisted you
- 15 initially in the preparation of the plan.
- 16 Could you please identify the
- 17 consultants for the record?
- 18 A. (Witness Schmer) Well, initially, we
- 19 were involved and interviewing many consultant
- 20 firms before they were hired, and I remember one
- 21 particular day at Ten Columbus Plaza, I believe it
- 22 was the PASNY headquarters, most of us were
- 23 impressed by the presentation that was put on by
- 24 EDS and EDS from Long Island was the initial
- 25 consultant that I'm familiar with.

- 1 We started to work with them.
- 2 another arrangement was made -- I don't really
- 3 know how -- but Parsons Brinkerhoff came on the
- 4 scene; and from that point on, we worked much more
- 5 closely with Parsons Brinkerhoff.
- 6 Q. Did you find that Parsons Brinkerhoff
- 7 was receptive to whatever input that you had to
- 8 work that they were doing?
- 9 A. (Witness Schmer) I was very impressed
- 10 with Parsons Brinkerhoff, the people that worked
- 11 for them, the type of work they do. They really
- 12 go down to -- really get down into the
- 13 nitty-gritty, the real detail type of work that's
- 14 needed in this type of operation.
- 15 Q. Mr. Scalpi, do you have an opinion
- 16 with respect to Parsons Brinkerhoff?
- 17 A. (Witness Scalpi) Yes.
- 18 MS. FLEISHER: Your Honor, I'm going
- 19 to object. This is like a rebuttal or something
- 20 like we did to cross Parsons Brinkerhoff.
- JUDGE GLEASON: This is like what?
- MS. FLEISHER: I'm sorry. I think
- 23 it's self-serving of them to have these two men
- 24 come in here and say how wonderful Parsons
- 25 Brinkerhoff was.

- They have been on the stand. 1 2 MR. PICKUS: We could have asked Parsons what they think of themselves. 3 JUDGE GLEASON: I don't really 4 understand your objection, Mrs. Fleisher. Please 5 6 proceed. Q. Mr. Scalpi, I believe the question was whether you have an opinion of the kind of 8 work that Parsons did? 9 A. (Witness Scalpi) Okay. Well, 10 Parsons Brinkerhoff give us the first draft. The 11 first drafted had quite a few things in it that 12 were wrong. We took this plan and we called the 13 services in, for instance, the transportation 14 plan. Some of the roads were named wrong, which 15 would be -- I think it would be par for the 16 course for anybody who is making a plan. 17 We took our own people, our sheriffs, 18 our highway department people and we showed them 19 the plan. We showed them the maps. They pointed 20 out where the mistakes were on the roads and stuff. 21 We made these corrections. We made these 22 corrections two years ago; two years ago we made 23
 - anything they want to do, we had the input.

these corrections. Almost anything we wanted --

24

25

- If we studied and read the plan and 1 done what we are supposed to do with the plan, we 2 had all kinds of input. 3 MR. SCHMER: I'd like to elaborate on 4 that. 5 6 Actually, what we did, Parsons Brinkerhoff was doing studies on the roads. They 7 were running the roads in Orange County. At this point, our plan starts to form. 9 10 I, the Superintendent of Highways for 11 my county who was in the Department of Public Works, went down to One Penn Plaza where Parsons 12 13 has their headquarters. We sat down and worked with them on these things, and our Superintendent 14 15 of Highways was rather impressed with what he 16 found. 17 As the plan developed, Parsons Brinkerhoff did not put a plan together for us. 18 19 They worked with us. Every month we had a 20 department head meeting. We had all our 21 commissioners and department heads and we sat down 22 with Parsons Brinkerhoff so that anything we put together would be tailored to how things 23
- This is how the plan evolved.

functioned in Orange County.

24

- It was with direct input from all our agency heads and department heads.
- Q. Let me ask you this, gentlemen, Mr.
- 4 Schmer, first, whose plan do you consider it to be
- 5 today?
- 6 A. (Witness Schmer) In Orange County, it
- 7 is the Orange County plan.
- 8 Q. Mr. Scalpi?
- 9 A. (Witness Scalpi) Same. It's Putnam
- 10 County's plan. It's up to us to keep it up to
- 11 date and viable.
- 12 Q. Now, gentlemen, in connection with
- 13 your ongoing work on the Plan, have you allowed
- 14 opportunity for input from the members of the
- 15 communities who wish to make suggestions about
- 16 what shoulld be in the plan?
- 17 A. (Witness Schmer) Well, if you would
- 18 like to spend some time with me, within the next
- 19 two weeks you'll find out exactly how we do that.
- Next Thursday night I'm appearing
- 21 before the town board in the town of Monroe
- 22 Woodbury. Friday night I'm appearing before the
- 23 town board -- this is meetings with the public
- 24 in the town of Highland. We have put together a
- 25 slide program that explains the plan into somewhat

- 1 detail, and we go out into local jurisdictions.
- We show this program and we field questions from
- 3 the local constituents.
- 4 We want to make sure that they know
- 5 what's in this plan. Many times some good
- 6 suggestions come out of these things.
- 7 Q. I take it that you performed these
- 8 activities in the past?
- 9 A. (Witness Schmer) This is on ongoing,
- 10 been ongoing for years in our jurisdiction.
- 11 Q. If a suggestion were made that you
- 12 find helpful, would you take it into account in
- 13 the plan?
- 14 A. (Witness Schmer) Definitely.
- 15 O. Mr. Scalpi, could I direct the same
- 16 question to you?
- 17 A. (Witness Scalpi) Yes. I went to
- 18 quite a few public meetings. I do pretty much
- 19 what Phil does. We have a slide show from my
- 20 county that we have put together. And we go to
- 21 different public places.
- 22 I have asked antinuke people -- as a
- 23 matter of fact, I have asked everybody but I went
- 24 to meetings where I was almost run out of the
- 25 meeting before the thing was over with, but I

- 1 asked them people.
- In all sincerity, I think my
- 3 statement would sound like I feel like the Maytag
- 4 washer guy sitting down in the basement. I would
- 5 love for somebody to come down here and talk to me
- 6 in the course of a day and somebody who has
- 7 something to say about this plan to come in my
- 8 office, "Let's talk about it, let's go over it."
- 9 Never had anybody come in, not in two
- 10 years. They have been invited widely.
- 11 Q. Have you been in contact with any of
- 12 the organizations such as Parents Concerned About
- 13 Indian Point that are parties to this proceeding?
- 14 A. (Witness Schmer) I haven't, no. I'm
- 15 sure there are people in this room that know me,
- 16 Mrs. Fleisher. I have gone down to Rockland
- 17 County to some meetings and seminars that they
- 18 have had down there. I have gone out to
- 19 Westchester County, to, you know, public forums,
- 20 but I have never been in contact with these people.
- 21 Q. Mr. Scalpi have you been in contact
- 22 with these people?
- 23 A. (Witness Scalpi) Not directly
- 24 physical contact, but I have in here a letter from
- 25 the Parents Concerned About Indian Point that they

- 1 wrote to the principals of our schools, and I
- 2 would like to -- I'd like this to be part --
- 3 MS. POTTERFIELD: Objection. It's
- 4 hearsay, your Honor.
- 5 MR. SCALPI: What the -- what the
- 6 hell happened?
- 7 MR. PICKUS: Judge, I don't believe
- 8 that I'm offering it into evidence at this time.
- 9 I may. I have never seen this letter before. I
- 10 would like to have it distributed and marked for
- 11 identification.
- 12 JUDGE GLEASON: All right. Let's do
- 13 that.
- MS. POTTERFIELD: It's clearly
- 15 hearsay, your Honor. I don't see any point in
- 16 identifying or letting him testifying about it.
- MS. FLEISHER: We have no copies of
- 18 it.
- MR. PICKUS: Judge, if I may be heard,
- 20 I believe that the hearsay objection only obtains
- 21 to documents that are offered into the evidence
- 22 when the truth of the matter is asserted. As I
- 23 said I have not offered it into evidence.
- JUDGE GLEASON: I heard what you aid.
- 25 Let's mark it. What do you want it marked?

- 1 MR. PICKUS: Could I have it marked 2 with the Board's permission as PA-44.
- JUDGE GLEASON: All right. It will
- 4 be so marked.
- 5 (PA 44 was marked for identification).
- 6 Q. Mr. Scalpi, is this a letter that you
- 7 received in the course of your employment at
- 8 Putnam County Civil Defense Director?
- 9 A. (Witness Scalpi) Yes.
- 10 Q. Judge, I would move the admission of
- 11 Exhibit PA-44 into evidence at this time on
- 12 several grounds. The most important being that it
- 13 is a statement by a party, and indeed is signed by
- 14 a witness who is here to testify. To that extent
- 15 and after reading the material contained in it, I
- 16 believe it's an admission. The letter contained
- 17 certain information. It has been conveyed to
- 18 individuals in the emergency planning zone, which
- 19 presents a somewhat skewed viewpoint of the
- 20 emergency planning process.
- MS. POTTERFIELD: Objection to the
- 22 characterization of the letter.
- MR. PICKUS: Judge, may I please
- 24 finish and we can hear the rest of the comments.
- There's also a solicitation letter

- 1 and finally, I might add and I note this is on the
- 2 record that I requested production of such
- 3 solicitation letters from Parents Concerned About
- 4 Indian Point, and I was told that there were no
- 5 such letters, and I believe that this is an
- 6 indication of the bad faith with which some of the
- 7 Intervenors have complied with their discovery
- 8 obligations.
- 9 JUDGE GLEASON: When did counsel
- 10 request such letters?
- 11 MR. PICKUS: I requested this about
- 12 two or three weeks ago to Mrs. Rodriguez. I was
- 13 told orally that there were no such letters in
- 14 existance.
- 15 Then in response to a request I made
- 16 on the record, I think about a week and a half ago,
- 17 the Board directed Parents to turn these letters
- 18 over to us, and we still haven't received them.
- 19 This is the first time, Judge, that I have seen
- 20 this letter, and I believe it gives us some
- 21 understanding of the basis for the information
- 22 that's been offered by the Intervenors into
- 23 evidence in this proceeding, and I don't think of
- 24 anything more relevant whether it be considered an
- 25 admission or another document.

1			I n	ote t	hat o	one of	the sign	natores of
2	this	letter	was	here	to te	estify	and at t	that time
3	could	have b	een	cross	5 - ехаг	ained.	I don't	know why
4	Paren	ts Conc	erne	d Abo	out In	ndian P	oint or	any other
5	Inter	venor w	ould	want	to	cross-e	xamine t	their own
6	witne	ss. So	I w	ould	move	it int	o evider	nce.
7			JUD	GE GI	EASO	N: Mrs	. Potter	field?
8								eason, the
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1 5			it'	s par	t of	the su	rvey.	She
16	testi	fied ab	out	it ov	ver ob	ojectio	n. The	Licensees
17	objec	ted to	her	testi	fying	g, that	in resp	oonse to
18	her s	urvey s	he h	ad go	otten	inform	nation th	nat they
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2 0	some	areas.						
21			', h a	t's a	all th	nere is	to it.	It's not
22	an ad	mission						
2 3			TF	thou	had	acked f	or this	letter
2 4	when	we were	try	ing t	to get	t the B	Board to	permit

25 Miss Anduzi to testify about her survey, then they

- 1 would have gotten it.
- 2 As I understand their request for
- 3 letters, it was a request for letters that were
- 4 written to witnesses who testified. Clearly this
- 5 letter resulted in no witnesses that I know of.
- 6 How Mr. Scalpi got it, I don't know
- 7 but it certainly isn't one of the letters that was
- 8 embodied in the request that was made, as I
- 9 understand the request, not having been involved
- 10 in it.
- I know that the request Mr. Pickus
- 12 made on the record was for one letter, I think,
- 13 that went to one particular witness who was here
- 14 to testify. He didn't request as I understand it
- 15 all letters that were ever sent out by Parents
- 16 trying to find out information about the
- 17 preparedness of schools and reception centers to
- 18 conduct the activities that were assigned to them
- 19 in the plan.
- It's no admission at all. It's
- 21 something that we have testified about and are
- 22 -- and it contains none of the kinds of
- 23 information that Mr. Pickus has characterized it
- 24 contained.
- MR. PICKUS: Judge, if I may,

apologize. 1 2 JUDGE GLEASON: Yes. The Board is still sitting here without a copy of this exhibit. 3 4 MR. PICKUS: I'm sorry. MS. POTTERFIELD: Miss Anduzi 5 testified that they returned -- they had three of these letters in her hand when she testified. JUDGE GLEASON: Is her testimony 9 admitted? 10 MS. POTTERFIELD: Well, it was a 11 struggle, your Honor, to put it mildly. 12 Eventually, she was able to testify that she had 13 done an informal survey and as to some of the 14 responses that she received from them. 15 MR. PICKUS: Does the Board now have 16 a copy? 17 JUDGE GLEASON: Yes. 18 MR. PICKUS: Judge, just to point to 19 so some of the statements that I believe create a 20 less than unbiased survey, questionnaire, the letter starts out in the first paragraph talking 21 about radiation disaster, which presumes that 22 there would in fact be adverse consequences. 23

FEMA deficiencies. Then it goes on on page 2 to

24

25

Then it goes on to talk about the

- 1 talk about stating even if they got no information,
- 2 little or no information, et cetera, it strikes me
- 3 as being precisely the kind of thing as the Con
- 4 Edison Exhibit, I believe it was Con Edison 9,
- 5 that was admitted in this proceeding, the survey
- 6 that was done by the Rockland Schools Committee
- 7 which started out with all kinds of scenarios
- 8 about a disaster and then purported to seek
- 9 unbiased evidence of what was going on in the
- 10 schools.
- MS. POTTERFIELD: The difference, of
- 12 course, Judge Gleason, is that that exhibit was
- 13 put in through the author of the survey.
- MR. PICKUS: And if I may, Judge, I
- 15 wished that I had this letter to cross-examine
- 16 those witnesses about. This is precisely why I
- 17 asked Mrs. Rodriguez for copies of all
- 18 correspondance that had been sent out by Parents
- 19 Concerned About Indian Point to witnesses so that
- 20 I might have had the opportunity to cross-examine
- 21 the witnesses about this document.
- 22 I don't think it's fair that the
- 23 Intervenors should be allowed to bootstrap their
- 24 own failure to your comply with discovery into
- 25 preventing us from putting very relevant evidence

- 1 into the record.
- MS. POTTERFIELD: Again, clearly,
- 3 Judge Gleason, it was not a letter sent to a
- 4 witness. It was a letter sent by a witness which
- 5 that witness had in her hand while she was being
- 6 cross-examined, and which she tried to get into
- 7 evidence at that time.
- 8 MR. PICKUS: My ears must be
- 9 disceiving me because I thought Ms. Potterfield
- 10 said a few minutes ago that this was sent to
- 11 witnesses.
- MS. POTTERFIELD: I certainly did not
- 13 say that. I said it clearly was not. It was sent
- 14 by a witness, Joan Anduzi, who then testified
- 15 about the survey that she sent over objection.
- 16 She had in her hand if you'll
- 17 remember the envelopes returned no -- that the
- 18 schools were no longer there, return to sender.
- 19 At that time she was testifying over
- 20 objection.
- 21 MR. SCALPI: Is it legal for me to
- 22 say something her, your Honor?
- JUDGE GLEASON: Not at this point.
- MR. PICKUS: Well, bring back the
- 25 Grand Jury.

1			MR.	BRA	ANDEN	NBURG:	Mr.	Chairma	n, if I
2	may very	brie	fly	, I	don'	t war	nt to	add exce	pt one
3	thought	to th	ie d	iscu	ıssio	on tha	it's a	lready g	one on
4	in this:	I	don	t t	hin	the	admis	sibility	of this
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8	record i	s ver	у с	lear	and	if i	t's v	ital to	the
9	Board's	rulin	ıg,	I th	nink	we ca	an com	e up wit	h a
10	transcri	pt re	fer	ence	e bot	th off	the	record b	ut
11	particul	arly	on	the	reco	ord wh	nere M	r. Picku	s asked
1 2	in very	clear	un	mist	akat	ole la	inguag	e for al	1
1 3	witness	solic	ita	tion	n mat	erial	that	had bee	n sent
1.4	by parti	es to	th	is p	roce	eeding	, to o	thers.	
1 5			Cle	arly	at	the t	op of	page 2	of this
16	document	, thi	s d	ocum	nent	asks,	, "Ple	ase indi	cate
17	whether	you c	oul	d be	ava	ilabl	e to	present	this
1 8	informat	ion i	n p	erso	n be	efore	the N	RC Atomi	c Safety
9	And Lice	nsing	Во	ard	Hear	ing i	n Whi	te Plain	s."
2 0			Now	, I	subn	nit th	ne mea	r fact t	hat that
2 1	statemen	t alo	ne	enti	tles	us t	o hav	e this r	ecord
2 2	admitted	into	ev	iden	nce a	as wit	ness	solicita	tion
2 3	material	that	ha	d be	en r	eques	sted u	pon the	record
2 4	and not	recei	ved	pri	ior t	o tod	lay.		
2.5			JUD	GE G	LEAS	ON:	How d	id you c	ome into

- 1 possession of this statement, sir?
- 2 MR. SCALPI: I had a seminar for all
- 3 the school principals on congregate care and one
- 4 of the principals told me she had this letter.
- JUDGE GLEASON: I see.
- 6 Even though it's hearsay, it's the
- 7 kind of hearsay that's admissible in this
- 8 proceeding, and the objection is denied and the
- 9 will be admitted into the record. Please proceed.
- 10 Q. Mr. Scalpi, what kind of an effect do
- 11 you think that this letter has had on the
- 12 preparation of an effective Emergency Plan for
- 13 your county?
- 14 A. (Witness Scalpi) Well, if -- I'm
- 15 glad I got to say something about this. It's
- 16 devastating,
- 17 On the bottom you'll notice that I
- 18 have a black marking going down here in the second
- 19 to the last paragraph, and it says here, "For example,
- 20 the emergency response plan calls for facilities
- 21 such as your school to provide services such as
- 22 radiation monitoring, decontamination, staffing
- 23 and provision of maps and directions to related
- 24 emergency facilities."
- 25 Actually, the plan -- and I also put

- 1 with that a copy of the plan and what they are
- 2 supposed to furnish.
- 3 What they are supposed to furnish is
- 4 a school with the janitorial service and whatever.
- 5 It's not -- I'm not saying that verbatim, but
- 6 monitoring and all that is done by us, by other
- 7 people. It's not done by the schools.
- 8 So this school principal was very
- 9 upset in that she didn't have any information from
- 10 me on what she was supposed to do.
- 11 All the time, she did have the
- 12 information because all she had to have was the
- 13 school, the janitorial service. So I think it is
- 14 detremental to the plan.
- JUDGE GLEASON: May I ask a question
- 16 which I should have asked? There's a third sheet
- 17 of paper. Is that --
- 18 MR. SCALPI: That's a copy of y
- 19 plan, your Honor, that's the particular page that
- 20 is to do with the congregate care centers.
- JUDGE GLEASON: Let me ask counsel,
- 22 please.
- MR. SCALPI: I'm sorry, your Honor.
- JUDGE GLEASON: Says "form reception
- 25 congregate care centers." Is that a part of this

- 1 letter?
- MR. PICKUS: I'm not sure, Judge. As
- 3 I say, I just saw the letter for the first time
- 4 five minutes ago for myself.
- 5 JUDGE GLEASON: Where did it come
- 6 from and what it is purposes?
- 7 MR. PICKUS: Mr. Scalpi, maybe you
- 8 could tell the Board.
- 9 MR. SCALPI: That's the actual copy
- 10 of what they do in a congregate care center.
- 11 That's actually what this principal had to do with
- 12 this.
- JUDGE GLEASON: I'm handing this back
- 14 to you because it's just this letter that we want.
- 15 Was that PA No. 44?
- MR. PICKUS: That is correct, Judge.
- JUDGE GLEASON: All right. Go ahead.
- MR. BRANDENBURG: My understanding
- 19 Mr. Chairman, is that PA 44 as admitted into
- 20 evidence consists of a two-page letter and nothing
- 21 more; is that correct?
- JUDGE GLEASON: That's correct.
- MR. PICKUS: That's correct, Judge.
- 24 Apologize for the confusion.
- JUDGE GLEASON: That's Okay.

- 1 Q. Mr. Scalpi, have you offered any
- 2 people who have been critical of the plan an
- 3 opportunity to come in and speak with you and
- 4 relay their concerns?
- 5 A. (Witness Scalpi) Absolutely, on many
- 6 occasions.
- 7 Q. And have any of those people followed
- 8 up on your invitations?
- 9 A. (Witness Scalpi) Not one.
- 10 Q. Now, gentlemen, did there come a time
- 11 when the State of New York began to play a bigger
- 12 role in radiological emergency response planning?
- 13 A. (Witness Schmer) Yes. Early part of
- 14 last year, I don't recall the exact date that, Law
- 15 708 was passed. But at that time, the state
- 16 organized a REP Group a Radiological Emergency
- 17 Planning Group, hired consultants and, in addition,
- 18 dispersed monies to the counties for radiological
- 19 planning.
- 20 In other words, they provided
- 21 consultants to work with us, to assist us in this
- 22 workload and provided monies to supplement or
- 23 purchase whatever additional equipment we would
- 24 like to have to enhance our planning process.
- 25 Q. How much money have they give given

- 1 you Mr Schmer?
- 2 A. (Witness Schmer) Ballpark figure this
- 3 past year in the vicinity of \$70,000 which we used
- 4 for additional radiological equipment, some
- 5 training equipment, to enhance our current
- 6 communications system, this type of thing.
- 7 Q. Do you expect to get money from the
- 8 state on an annual basis?
- 9 A. (Witness Schmer) Yes, at least until
- 10 the initial requirement that we submitted is
- 11 honored.
- 12 Q. Mr. Scalpi, have you received money
- 13 from the state to assist you in radiological
- 14 emergency planning?
- 15 A. (Witness Scalpi) Yes. I have
- 16 received probably about \$140,000. I had no
- 17 communications when we started. Now my EOC is
- 18 fully equipped with communications, and that's
- 19 about the answer.
- 20 Q. Have either of you received any
- 21 equipment from the state to help support your
- 22 efforts for radiological emergency planning?
- A. (Witness Schmer) Well, we have always
- 24 received equipment from the state in the form of
- 25 war related activities, radiological equipment.

```
A number of those pieces of equipment
 1
 2
      are or can be used in this type of a scenario.
                   The utilities, however, did provide
 3
      us with a tremendous amount of much more
 4
 5
      sophisticated equipment to work in the peacetime
      nuclear scenario.
6
                  Could you tell us what that equipment
      is?
 8
            A. (Witness Schmer) Yes, samplers which
9
      the state never issued or federal government never
10
     issued, radiological equipment that would measure
11
      in micrograms as versus milligrams, in other words
12
      a millionth of a gram as versus a thousandth of a
13
      gram, much more sophisticated dosimeters and LTD,
14
      thermolescent dosimeters which we never had before.
15
           Q. Did the utilities pay for this?
16
           A. (Witness Schmer) Yes, the utilities
17
      paid for this.
18
                   In addition, the utilities, if I may,
19
      continue with that, provided us with computers,
20
     telefax machines, telephones, really anything we
21
      requested to insure that our plan would work.
22
           O. Mr. Scalpi, have you received
23
     equipment from either the state or the Licensees?
24
```

25

A. (Witness Scalpi) Both. When I talked

- 1 about the \$140,000, the state paid for some radios
- 2 for me in the beginning and I know what the cost
- 3 of it was.
- A generator, I needed an emergency
- 5 generator, and they gave me money for the
- 6 emergency generator.
- 7 When I say \$140,000, I'm talking
- 8 about total of everything. They did give us five
- 9 REM dosimeters. I guess all that money comes out
- 10 of the utility rental or whatever they want to
- 11 call it.
- 12 The utilities, also, gave us all
- 13 kinds of equipment. As a matter of fact, anything
- 14 we want, they have been more than decent about
- 15 giving us.
- 16 Q. And have the utilities expended
- 17 monies, to your knowledge, beyond those which they
- 18 are required to pay under state law?
- 19 A. (Witness Schmer) Absolutely no doubt
- 20 about that. For instance, the slide program, to
- 21 put together a slide program so that I can go out
- 22 and educate the public on our planning process, I
- 23 don't know the exact figure, but I understand it
- 24 was in excess of \$5,000 for my county alone.
- MR. THORSEN: Your Honor, I don't

really see the purpose of most of this examination. 1 2 JUDGE GLEASON: Pardon? MR. THORSEN: I don't really don't 3 see much purpose behind this examination. 4 JUDGE GLEASON: The purpose of this 5 5 examination is to put into the record what the emergency plans and attitudes of the local 7 8 officials is with respect to emergency plans of these two counties, just as we put in the record 10 the attitude of your persons in connection with the emergency planning and you are going to have a 11 12 chance to cross-examine them if you care to do so. 13 That's the case. MR. THORSEN: Well, if I can find 1.4 anything to cross-examine on, I certainly will. 15 16 MR. SCHMER: If I may finish, sir, the reason we felt to the slide program, at least 17 I felt -- I'm sure Mike felt the same way -- it's 18 one thing to have an Emergency Plan and have all 19 20 the players be intimately familiar with the plan 21 which is a prerequisite, but a plan of this 22 magnitude and a plan that has been getting so much publicity in the newpapers couldn't really work 23 24 unless the public was intimately familiar with their role in this thing, for instance, the 25

- 1 evacuation portion of a plan.
- We felt the slide program would
- 3 enable us to go down to the local jurisdictions,
- 4 you know, repeatedly, you know, to make sure that
- 5 we got at as many people as we could to view this
- 6 and ask their questions and view their concerns.
- 7 We find that this is being very well
- 8 received.
- 9 Q. Could you gentlemen tell us a little
- 10 bit about the radiological emergency preparedness
- 11 training that might be going on in your respective
- 12 counties?
- 13 A. (Witness Scalpi) Well, in my county,
- 14 I meant to bring another -- my training matrix
- 15 with me. I forgot it. In my county, we train
- 16 radiological people -- I have an exceptionally
- 17 great radiological group because they are all
- 18 RACES Groups, and pretty much of my membership in
- 19 that particular group are engineers in the
- 20 telephone company.
- 21 Q. Mr. Scalpi, I don't mean to interrupt
- 22 you. Would you please identify what RACES is?
- 23 A. (Witness Scalpi) Radio Amatuer
- 24 Civilian Emergency Service. They are my ham radio
- 25 operators that run all my communications

- 1 incidentally. They are all volunteers.
- 2 As a matter of fact my organization
- 3 is 95 percent volunteers, my civil defense
- 4 organization.
- Now, these people are, like I said,
- 6 they are -- we even got a lawyer on my RACES
- 7 outfit.
- 8 JUDGE PARIS: Sounded pretty good
- 9 until then.
- 10 MR. SCALPI: I only let one in. What
- 11 I'm trying to say--
- MR. BRANDENBURG: There's only one on
- 13 the Board, too, Mr Scalpi.
- MR. SCALPI: What I'm trying to say
- is they are a highly intelligent bunch of people.
- 16 They accept this training. They are my field
- 17 monitors.
- I have a radiological officer who has
- 19 a lot of formal education in nuclear.
- The training is constant. It goes on
- 21 all the time. If it ain't once a week it's twice
- 22 a week. Our matrix shows that our people are
- 23 trained at least five times a month. These are
- 24 all volunteers and they do it at night and on
- 25 Saturdays and Sundays.

- I hope I have answered your question.
- Q. Yes you have. I'm just curious, does
- 3 the stace assist you with this training?
- 4 A. (Witness Scalpi) The state will give
- 5 us any assistance we want and the utilities will
- 6 give us any assistance -- I could ask the
- 7 utility for somebody on 2:00 on Sunday afternoon
- 8 to train somebody. He's there. The state will do
- 9 the same thing. We have no problem getting
- 10 anybody to give us a hand
- 11 Q. Mr. Schmer?
- 12 A. (Witness Schmer) As I indicated, we
- 13 have been running training for first response
- 14 since '75 in peacetime nuclear radiation scenarios.
- 15 We have been running it for many years before for
- 16 war related activities.
- 17 We have different courses for fire
- 18 people, police people, ambulance people. We give
- 19 them basic radiation terminology, you know,
- 20 instrumentation and this sort of thing, but in
- 21 some areas their mission is different a little bit.
- 22 So we run courses for these people.
- 23 We have run courses for hospitals in
- 24 our jurisdiction. We have, I believe, now three
- 25 hospitals that are prepared to recieve radiation

for contaminated victims. It's an ongoing thing. 1 2 I find particularly with fire people, 3 when they take this training, a light kind of dawns and they suddenly realize that they are a lot safer responding to a radiation-type incident 6 than they are to the type of incidents they normally respond to, for instance, chemical or 7 multiple chemical accidents. 9 They suddenly realize that this 10 radiation -- with education, they realize it is not as dangerous as they have understood it to be 11 in the past, that chemicals and smoke and this 12 13 type of thing can, if you make a mistake in that 14 scenario, you could be dead now. 15 If you make a mistake in the radiation type of scenario or -- it's not that 16 17 final. 18 JUDGE GLEASON: How much longer do you have with this? 19 20 MR. PICKUS: Well, Judge, I think I do have a bit more, perhaps about 45 minutes. 21 22 JUDGE GLEASON: All right. I think 23 that we better recess for lunch until 1:30. MR. PICKUS: Thank you, Judge. 24

25

(Hearing adjourned at 12:35 p.m.)

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25 that document?

(Witness Scalpi) 1982? A . 2 Yes. 0. (Witness Scalpi) Yes, sir. 3 A . And, Mr Schmer, did that document 4 0. 5 contain some criticism as to the communications 6 capability in Orange County, to you recollection? 7 (Witness Schmer) Yes, it did. It alluded to a malfuntion in the executive hot line, 9 which did occur. It was a defective piece of 10 equipment. 11 In my response to that criticism, I indicated that all crisis management people, 12 13 whether it be police, fire, ambulance or even in the military, do experience equipment failure. 14 15 If equipment failure is above the average, then something must be done within the 16 17 organization, either maintenance or there's something wrong, but if it happens occasionally, 18 19 and the using organization puts a system into 20 place or takes immediate corrective action to overcome that deficiency, then the unit or the 21 22 people being rated, should be evaluated, you know, 23 in that vein, which is what we did. 24 The executive hot line didn't function. We immediately used another phone to call the people 25

- 1 we were supposed to be communicating with and kept
- 2 the line open for the duration of the exercise.
- 3 So although we had an equipment
- 4 malfuntion, the mission went on, you know, without
- 5 any undue hardships.
- 6 Q. Have you since repaired the hot line?
- 7 A. (Witness Schmer) Yes. That was
- 8 repaired immediately after the exercise.
- 9 Maybe I shouldn't say this, but I was
- 10 upset when the FEMA evaluators indicated that this
- 11 particular piece of equipment should be repaired.
- 12 It would be like getting a flat tire
- 13 in your car. Nobody has to tell to you fix a flat.
- 14 It's an implied task. You correct a malfuntion as
- 15 soon as it's humanly possible.
- 16 Q. Is the hot line working today?
- 17 A. (Witness Schmer) Yes, it is.
- 18 Q. Mr. Schmer, another criticism that
- 19 FEMA made was that relief personnel weren't
- 20 adequately trained during the exercise. Has that
- 21 deficiency been remedied?
- 22 A. (Witness Schmer) Yes, it has. The
- 23 people were adqueately trained at the time. We
- 24 did not have the opportunity to demonstrate that.
- 25 We did demonstrate that this year.

- 1 Q. And I believe another deficiency
- 2 cited, it was failure of certain sirens to sound
- 3 in Orange County. Has that deficiency been
- 4 corrected?
- 5 A. (Witness Schmer) We have conducted
- 6 one test on our own in the county, and during the
- 7 exercise, all the sirens did go off. In both
- 8 cases it was 100 percent success.
- 9 Q. Mr. Scalpi, with reference to the
- 10 FEMA post-exercise assessment, do you recall there
- ll being contained in that document some criticism
- 12 that you did not have an assistant to help you in
- 13 carrying out your tasks?
- 14 A. (Witness Scalpi) Yes, sir.
- 15 Q. Has that deficiency been remedied
- 16 since the exercise?
- 17 A. (Witness Scalpi) Yes, sir.
- 18 O. How has that been done?
- 19 A. I named the county personnel officer,
- 20 deputy director of civil defense and trained him
- 21 in that position. Since that time, we have got
- 22 another assistant radiological officer, and he's
- 23 trained in the position.
- 24 Q. Mr. Scalpi, do you recall another
- 25 criticism cited by FEMA as being a need to clarify

- 1 the excessive dose allowance that would be
- 2 permitted for emergency workers in Putnam County?
- 3 A. (Witness Scalpi) No, I don't recall
- 4 that unless you are talking about the new rule
- 5 where the county executive has to give permission
- 6 for somebody to stay in the EPZ if they have got
- 7 three REM or more.
- 8 Q. That's correct.
- 9 A. (Witness Scalpi) Yes, sir. We have a
- 10 regular form made out for that now that he has to
- 11 use.
- 12 Q. Have any personnel other than the one
- 13 that you just mentioned, Mr Scalpi, or, Mr. Schmer,
- 14 been hired recently, either on a full or part time
- 15 basis to assist you in radiological emergency
- 16 planning?
- 17 A. (Witness Schmer) Yes. We indicated
- 18 to the state that because of the voluminous amount
- 19 of work in this planning process and training
- 20 process that we would like to hire a person, and
- 21 the state provided the funds for us to hire a
- 22 person on a contractual or consultant basis.
- 23 We have hired a head of one of the
- 24 local hospitals' radiological department to assist
- 25 us in this training and planning process.

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Gentlemen, in line with the Board's
      directive to me after the lunch to assure a little
 2
      bit more focus and fairness here, I'm going to ask
 3
      Miss Rosenson to hand to each of you an excerpt
      from the Board's February 7 order which contains
      the contentions in this proceeding, which are the
      issues that have been proposed by the Intervenors
      for litigation.
                  I have additional copies if any of
9
      the other parties would like. I don't believe
10
      there's any need to mark it, but I would be so
11
      willing if the Board would like.
12
                   What I would like to do, gentlemen, is to
13
14
     go down the contentions one by one, and there
     aren't that many of them, and simply get your
15
     position as to whether the contentions are correct
16
17
     or not and the basis for your conclusion.
1
                   JUDGE PARIS: Are these relating to
     questions three and four?
19
20
                   MR. PICKUS: Yes, your Honor, just
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- 21 questions three and four.

 22 0. Turning first to the page labeled
- 23 Appendix, which is the second page of the document
 24 that you were just handed, contention 3.1 states "Emergency
- 25 planning for Indian Point Unites 2 and 3 is

- 1 inadequate in that the present plans do not meet
- 2 any of the 16 mandatory standards of 10 C.F.R.
- 3 50.47(b) nor do they meet the standards of
- 4 Appendix E to 10 C.F.R. Part 50."
- 5 Are you gentlemen familiar with the
- 6 standards of 10 C.F.R. that are listed in that
- 7 contention?
- 8 A. (Witness Schmer) I couldn't recite
- 9 them verbatim now but do I know that we have gone
- 10 through them and addressed them. If you want to
- 11 ask specifics questions on any one of them I would
- 12 be more than glad to answer them.
- 13 O. What I will do is ask Miss Rosenson
- 14 again to give each of you gentlemen a document
- 15 which an excerpt from 10 C.F.R. containing the 16
- 16 planning standards of subsection (b). You'll see
- 17 on the right-hand column underneath (b) there are
- 18 a number of paragraphs starting 1, 2 and
- 19 continuing to the end.
- Number 16, I'm wondering if you could
- 21 just read through those and tell me whether there
- 22 are any of those standards with which your county
- 23 is not in compliance. Some of them, I understand,
- 24 relate only to onsite organizations. So obviously
- 25 you wouldn't have to address those.

- A. (Witness Scalpi) Is this out of 0654?

 2 Q. No, sir. It is out of the regulatory
- 3 basis for 0654. They are essentially the same
- 4 standards contained in 0654, but 0654 is a
- 5 regulatory guide that's based on those. 0654 is
- 6 much more detailed and specific.
- 7 A. (Witness Scalpi) I'd have to read
- 8 this in depth before I could give you an answer on
- 9 this. I'd have to take a little more time.
- 10 Q. Perhaps we can do it this way,
- 11 gentlemen. Are you familiar with NUREG-0654
- 12 A. (Witnesses responded.) Yes.
- 13 Q. Are you aware of any planning
- 14 standards contained in NUREG-0654 with which you
- 15 are not in compliance?
- 16 A. (Witness Schmer) No. We are in
- 17 compliance with all of them.
- MR. SCALPI: None that I known of.
- 19 Q. Moving onto contention 3.2. "The
- 20 emergency plans for Indian Point Units 2 and 3 do
- 21 not conform with NRC FEMA guidelines because the
- 22 assumptions made therein with respect to human
- 23 response factors during a radiological emergency
- 24 are erroneous. Hence, the estimates of evacuation
- 25 times and of the feasibility of timely evacuation

- 1 for certain areas are incorrect."
- 2 Would you gentlemen each give me your
- 3 position on that contention.
- 4 A. (Witness Schmer) I believe I alluded
- 5 to that before. If all responders, all players
- 6 involving in a plan, regardless of what type of
- 7 plan it is, are intimately familiar with the plan
- 8 and the public understands their role in the plan,
- 9 I see no major problems with it.
- There may be confusion at the onset,
- 11 but if leadership exerts itself and as the
- 12 scenario unfolds, as people have been trained, I
- 13 see no problems. I believe it will work.
- 14 Q. Mr. Schmer, do you believe that the
- 15 emergency workers who are designated in your
- 16 Radiological Emergency Response Plan will respond?
- 17 A. (Witness Schmer) Yes.
- 18 O. Mr. Scalpi, can you answer that
- 19 question, please?
- 20 A. (Witness Scalpi) Well, when they
- 21 asked about human guidelines and stuff like this,
- 22 I think it's facetious, really. People do respond.
- 23 They respond the way they are trained. I have
- 24 noticed that my whole life. Of all the evacuation
- 25 plans, of all the evacuations they have had

- 1 without plans and stuff, they always seem to work
- 2 pretty good.
- I don't see where you could say that
- 4 there's going to be a human element here that's
- 5 not going to do this, because the history shows us
- 6 different. Back to Noah's Ark, they had on
- 7 evacuation then. They did pretty damn good.
- 8 Q. Do you believe that in your
- 9 experience, Mr Scalpi, that your own personnel
- 10 will respond if you so call upon them?
- 11 A. (Witness Scalpi) Absolutely. I'll
- 12 tell you this: In order to strenghthen that
- 13 question, that answer, that for every person we
- 14 need, we must have five trained, I think. We have
- 15 got an awful lot of people trained.
- 16 Q. Have either of you ever seen an
- 17 emergency situation in which your emergency
- 18 workers have either failed to respond or abandoned
- 19 their duties?
- 20 A. (Witness Schmer) No. We have had
- 21 three radiological incidents in our jurisdiction
- 22 over the past year and a half. I'm sure you are
- 23 all familiar with the tremendous floods and ice
- 24 flooding that we had in Port Gervis two years ago.
- 25 We have had a number of chemical accidents and the

- 1 emergency workers responded to that.
- 2 Again, if an individual, an emergency
- 3 worker and in our county -- it's primarily a
- 4 volunteer county. If these people will respond,
- 5 where you could lose your life right on the spot,
- 6 if they would respond to that, I see no problem
- 7 with them responding to a radiological emergency.
- 8 Q. Mr. Scalpi, would you like to answer
- 9 that question?
- 10 A. (Witness Scalpi) Well, my point of
- 11 view is when people volunteer to do something, 99
- 12 percent of the times, they'll carry it out. Maybe
- 13 if we are talking about paid workers, there might
- 14 be a different viewpoint. People volunteered to
- 15 do these things and the reason why they
- 16 volunteered is they want to do these things.
- 17 In likely chances they are going to
- 18 do what they volunteered for.
- 19 Q. Moving onto contention 3. In page
- 20 two of the document that I gave you reads "The
- 21 present estimates of evacuation times, based on
- 22 NUREG-0654 and studies by CONSAD Research
- 23 Corporation and by Parsons, Brinkerhoff, Quade &
- 24 Douglas, Inc.,, are unreliable. They are based on
- 25 unproven assumptions, utilize unverified

- 1 methodologies and do not reflect the actual
- 2 emergency plans."
- First of all, let me ask, are you
- 4 gentlemen each familiar with the evacuation time
- 5 estimates prepared by Parsons Brinkerhoff for your
- 6 respective counties?
- 7 A. (Witness Schmer) Yes.
- 8 Q. Mr. Scalpi?
- 9 A. (Witness Scalpi) Yes..
- 10 Q. Do you agree with those evacuation
- 11 time estimates?
- 12 A. (Witness Scalpi) I think they are
- 13 extremely high. I think the evacuation could take
- 14 place in much less time.
- MR. SCHMER: I think it's right at
- 16 the ballpark in our county as evidenced by the
- 17 lack of planning that we have had for Indian Point
- 18 with reference to the ceremonies for the hostage
- 19 release about a year and a half ago.
- We had people converge on the town of
- 21 Highlands-West Point Area in Orange County that
- 22 far exceed what we would expect to have on our
- 23 roads in the type of scenario we are addressing
- 24 today.
- 25 Traffic moves smoothly when there are

- 1 problems on the road. The police did there their
- 2 thing. The roads were cleared and traffic kept
- 3 moving. We didn't experience any problems that
- 4 couldn't be handled.
- 5 Q. Contention 3.4, "The administrative
- 6 control of notification procedures at Indian Point
- 7 Units 2 and 3 is so deficient that the Licensees
- 8 cannot be depended on to notify the proper
- 9 authorities of an emergency promptly and
- 10 accurately enough to assure effective response."
- 11 Gentlemen, are you among the persons
- 12 that are to be notified by the Licensees in the
- 13 event of a radiological emergency?
- 14 A. (Witness Schmer) Yes.
- 15 ___ Q. Do you believe the Licensees can be
- 16 depended upon to give you the appropriate
- 17 notification?
- 18 A. (Witness Schmer) I can only answer
- 19 that question based on history. Initially at the
- 20 early stage of this thing, there were certain
- 21 unusual incidents that took place whereby local
- 22 jurisdictions were not informed. I find out later
- 23 at a hearing up in Albany that this was within
- 24 agreement that the utilities had with the NRC and
- 25 this was appropriate.

- Because some of the counties viewed 1 2 this with a jaundiced eye, they taken just the opposite viewpoint. I get phone calls -- I 3 don't know for some reason or another unusual 4 events start after Friday night after 5:00. They 5 6 usually take place 2:00 or 3:00 on a Saturday or Sunday morning. 7 We get notified for any unusual event. If 8 a worker gets a sliver in his eye that has nothing 9 10 to do with the radiation, we get notified. So based on the response that we are 11 getting now, I have to assume that they would be 12 honest with us. 13 O. Mr. Scalpi, do you believe that the 14 Licensees can be depended upon to notify you 15 promptly? 16 A. (Witness Scalpi) Yes. I wished they 17 would put the person on the telephone call list 18 that said that contention, that they didn't do it. 19 I wish they'd put him on the telephone call list, 20 like Phil says, that we answer a lot of telephone 21 calls both home and at work. 22 Contention 3.6. "The emergency plans 23
- and proposed protective action does not adequately take into account the full range of meteorological

- conditions for Indian Point Units 2 and 3." 1 2 Do you have a position on that 3 contention? 4 A. (Witness Schmer) I just don't understand that. I believe we do. I'm not a 5 6 nuclear physicist. I'm not a scientist. I have to depend on these people for input. 7 Based on my own, I believe that we do 8 9 take these things into account. In fact, the 10 utilities have put a computer into my facility whereby any day, week or night, we can literally 11 12 put our computer on and read what's coming off 13 their computers. 14 The information is available to us 15 any day and night. JUDGE SHON: If you'll excuse me. 16 17 MR. PICKUS: Certainly.
- JUDGE SHON: How about a much more
- 19 direct and less esoteric meeting for
- 20 meteorological conditions such as what if it's
- 21 snowing or there's a flood or a blizzard or
- 22 something like that.
- MR. SCHMER: Then I would have less
- 24 to worry about, sir. We would get what we would
- 25 call -- we are talking war time nuclear activity. If

- 1 a plume is coming over and there's a rain,
- 2 someplace between Indian Point and my county, it
- 3 would be taken down to the ground.
- 4 JUDGE SHON: I'm afraid we missed it
- 5 again. I'm not talking about the effect on
- 6 atmospheric disperse which I don't expect you to
- 7 be an expert in, but the effect on people who
- 8 might want to evacuate and whether they could do
- 9 so at all before any plume even got to them in a
- 10 snowstorm, in other words, will the evacuation
- ll plans also work in the snowstorm?
- 12 MR. SCHMER: Yes, sir. We believe
- 13 the time tables indicate this. We have an
- 14 agreement with our own Department of Public Works
- 15 and we have an agreement with the Department of
- 16 Transportation of the State of New York. In the
- 17 event of an accident or incident at Indian Point
- 18 all the resourses from the county and the state
- 19 would be sent down to our counties to assist us in
- 20 making sure that the roads are kept open.
- 21 JUDGE GLEASON: Go ahead.
- 22 Q. Mr. Scalpi, would you like to --
- MR. SCALPI: My answer is the same.
- Q. Contention 3.7 on page eight, "The
- 25 problems of evacuating children from threatened

- 1 areas have not been adequately addressed in the
- 2 present emergency plans."
- 3 Either or both of you gentlemen have
- 4 a position on that contention?
- 5 A. (Witness Schmer) If they could be a
- 6 little more specific, perhaps I could answer
- 7 specifically. I believe this has been addressed
- 8 adequately, more than adequately.
- Q. Mr. Scalpi?
- 10 A. (Witness Scalpi) Same way, there's
- 11 not a specific answer to what you are saying here.
- 12 Q. Let me perhaps ask you gentlemen some
- 13 more specific questions and that might assist you
- 14 and the Board.
- MR. SCHMER: All right.
- 16 Q. Were you aware of a new procedure
- 17 that was recently adopted for evacuating schools
- in the event of a radiological emergency?
- 19 A. (Witness Scalpi) You say a "new
- 20 procedure". That existed in the plan, has existed
- 21 in the plan since the plan was written.
- 22 Q. Could you tell us first what you are
- 23 talking about, Mr. Scalpi?
- A. (Witness Scalpi) We are talking
- 25 evacuation of children from the schools.

```
Yes.
 1
          Q.
          A. (Witness Scalpi) That's what we are
 2
 3
     talking about.
        Q. I understand there was a recent
 4
     change in the plan providing for early dismissal.
 5
          A. (Witness Schmer) Yes, okay. At the
 6
     early yes stages of a radiological --
7
                 MR. SCALPI: That's always been in
8
    the plan. That was an option that the county
10
     executed. I just researched that a day or so ago.
    The county executed the option of sending the
11
    children home earlier. That's in the plan.
12
           Q. Do you gentlemen approve of this
13
14
     procedure?
         A. (Witness Schmer) Yes, I do.
15
                 MR. SCALPI: Certainly do.
16
          Q. Do you believe it will work in the
17
     event there is an emergency to assure the safety
18
     of the children?
19
         A. (Witness Schmer) Well, more
20
     importantly than my agreeing that it would work,
21
     if we sat down with the school officials in Orange
22
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situation developed and the children had not come

County and they felt that this was the best

scenario to follow. In other words, if a

23

24

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- I to school, they would put a plan into effect
- 2 similar to a snow day. The children would not go
- 3 to school.
- 4 If a scenario developed while in
- 5 school, all outside activities would immediately
- 6 cease and the plan would be put into effect
- 7 whereby the children would be sent home.
- 8 Q. Finish your answer.
- 9 A. (Witness Schmer) Such as what's --
- 10 which is a common occurrence. There are many
- 11 things that caused this throughout the course of a
- 12 school year, loss of heat, loss of water. We even
- 13 had a school in Orange County this past winter
- 14 that had the roof caved in and they went home
- 15 early. The plan was put into effect. It's not an
- 16 uncommon thing.
- 17 Q. Do you know how many times within the
- 18 past, let's say, five years that the early
- 19 dismissal plan has been used in Orange County?
- 20 A. (Witness Schmer) No. I couldn't give
- 21 you a number, but I would -- I put this question
- 22 to the superintendent of the schools in Orange
- 23 County, and she asked me, "Well, what would you
- 24 consider an uncommon as versus a common occurrence?"
- 25 I couldn't come up with an answer on that.

This woman indicated to me that it is 1 more common than realized. Children are sent 2 home -- that children are sent home from school. 3 Q. In your opinion has this happened 4 more than 20 times in the past five years? 5 6 (Witness Schmer) I would say at a Α. 7 guess -- it would have to be a guess -- it would be a good ballpark figure. A. Either of you gentlemen ever 9 10 attempted to evacuate or early-dismiss a school 11 population during an exercise? A. (Witness Schmer) We haven't -- we 12 13 do not check evacuation by actually evacuating. 14 What we do is we insure that the people who are 15 responsible for this down to the lowest level understand their roles and we put a scenario into 16 17 place, when we get responses back from these 18 people. We evaluate the steps that they are taken 19 and in this last exercise we had no idea which 20 evacuation routes FEMA wanted us to run. 21 They during the course of the exercise made a decision to run a particular 22 evacuation route. I believe they chose two and 23 the transportation officer demonstrated -- I 24

25

understand very effectively -- that this could be

- 1 done.
- Q. Mr. Scalpi, has Putnam County ever
- 3 exercised the school dismissal plan?
- 4 A. (Witness Scalpi) Last year, when I
- 5 done a lot of extra things in the drill, I wanted
- 6 to exercise a lot of other things besides what the
- 7 scenario had down, and I evacuated one load of
- 8 school kids from their school in Putnam valley up
- 9 to Duchess County, and we decontaminated them and
- 10 gave them lunch and sent them back,
- 11 They were a very, very happy bunch of
- 12 kids. The only thing, when the deal was all over
- 13 with I had a hell of a hard time coming up with
- 14 100 dollars to pay the school buses. So this year
- 15 I wasn't too anxious to do a lot of extra things.
- Last year, I also, I turned my whole
- 17 staff over at noon and brought in a whole new
- 18 staff in the EOC. That's when I got caught with
- 19 no civil defense director assistant and no
- 20 radiological officer assistant. If I hadn't done
- 21 that I would have come out perfect in the drill.
- 22 So this year here I didn't do too many extra
- 23 things.
- JUDGE PARIS: Your eagerness will get
- 25 you in trouble every time.

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had we elected to keep the whole concept in Orange

- 1 County so that we could exercise complete control.
- 2 We had absolutely no problems with
- 3 the people that we use for the reception or
- 4 congregate care.
- 5 Q. Contention 3.9, "The road system in
- 6 the vicinity of the Indian Point Plan is
- 7 inadequate for timely evacuation."
- B Do you agree with this contention?
- 9 A. (Witness Schmer) Not too familiar
- 10 with the roads in the vicinity of Indian Point. I
- 11 think the roads in Orange County, running those
- 12 roads will indicate that the time factors used in
- 13 our evacuation plan are pretty accurate.
- 14 Q. Mr. Scalpi, do you have an opinion?
- 15 A. (Witness Scalpi) Yes, I have an
- 16 opinion. I don't think the roads are adequate
- 17 any place for any thing.
- 18 Q. Contention 3.10 --
- JUDGE GLEASON: That sports that
- 20 contention.
- 21 MR. SCALPI: Especially when my wife
- 22 is driving.
- 23 Q. You indicated earlier, though, did
- 24 you not Mr. Scalpi that you agreed with the
- 25 evacuation time estimates for your county that

- 1 were prepared by Parsons Brinkerhoff?
- 2 A. (Witness Scalpi) Yes.
- 3 Q. Contention 3.10 -- we ought to get
- 4 him together with Mr. Brooker who complained about
- 5 his wife watching TV.
- 6 Contention 3.10, "The Emergency Plan
- 7 fails to confirm to NUREG-0654 in that contrary to
- 8 Evaluation Criteria II.J.10.d., proper means for
- 9 protecting persons whose mobility may be impaired
- 10 have not been developed. Specifically, adequate
- 11 provisions have not been made for groups named in
- 12 the bases submitted for the following contention:"
- Then they list some contentions.
- 14 Without going through those particular contentions,
- 15 let's extend the contention to include anybody who
- 16 may have trouble leaving an area without
- 17 assistance whether they be deaf, blind, injured,
- 18 handicapped, some other infimity. Would you tell
- 19 me what your county's position is on that
- 20 contention?
- 21 A. (Witness Schmer) I'm not nieve enough
- 22 to feel that there may be somebody in that
- 23 ten-mile EPZ that's informed or needs assistance
- 24 that we are not aware of. Let me tell you what
- 25 we have done.

No. 1, using the cards on the 1 2 brochures that are handed out, people responded sending those in indicated they need help. We 3 have gone to the local police people. We have gone to the local utility companies who are 5 usually aware if somebody is on any life support 7 equipment. We have gone to the local ambulance corps. They are usually aware of people, you know, in this category, and every name that we have come 10 up with, these people have been contacted at least 11 twice, one by telephone to discuss with them the 12 nature of their problem and the type of help they 13 need; and once this has been established, we put it into a plan. 14

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by letter informing them of just how they would be picked up. We have special bus routes for this.

We have special buses, you know, handicapped type buses used for this. For every person that we are aware of that needs this type of assistance, we made arrangements for them to be picked up. This is ongoing. We will continually searching for people who need this help so we can include them with this; but as we become aware, we certainly include them in this plan.

1	Q.	What else are you doing
2		JUDGE PARIS: May I have a quick
3	follow up?	
4		Mr. Schmer do you happe to
5	remember the	number of such people that you have
6	in the EPZ in	Orange County?
7		MR. SCHMER: Approximately 20, 22
8	right now, si	r.
9		JUDGE PARIS: How about in Putnam
10	County?	
11		MR. SCALPI: I have 80 altogether
1 2	that need tra	nsportation. I have five handicapped
1 3	that have to	be picked up with a special bus with
1 4	a lift on it,	and I have one person that has to be
15	picked up by	ambulance. That changes everyday,
16	your Honor.	You know, some people die and some
17	more come on	the list. It's a very, very moving
18	list there.	I think I had 20 changes in the past
19	year.	
2 0		JUDGE PARIS: Now, the 80 that
21	require trans	portation includes some people who
2 2	just are not	physically impaired but need rides;
2.3	is that it?	
2 4		MR. SCALPI: That's right.
2 5		JUDGE PARIS: Does your 22 include

- these kinds of people?
- 2 MR. SCHMER: No. I was referring
- 3 just to impaired people that need help. We
- 4 have -- I forget exactly what you call it. We
- 5 have a number of buses that run the EPZ picking up
- 6 reople that do not have transportation. These
- 7 lists we have gotten again from local police
- 8 people, local officials.
- JUDGE PARIS: You got 22 physically
- 10 impaired and you have got how many physically
- 11 impaired?
- MR. SCALPI: Well --
- JUDGE PARIS: The five plus the --
- MR. SCALPI: I don't know.
- 15 Physically impaired that 80 might go into that,
- 16 too, they have some problem, either arthritis and
- 17 they can't move too good. They might not be able
- 18 to walk to the bus stop where we have a bus
- 19 actually going to.
- A lot of times we get one of the
- 21 cards filled out by a daughter who works in New
- 22 York and her mother is in the country. When we
- 23 check and find out the mother lives alone, and the
- 24 daughter is worried about the mother but probably
- 25 not worried enough to get her and get her the hell

out of there. So they leave that up to us. We 1 check and the mother is all right. The mother can go to the bus stop, but the daughter, you know, to 3 do her thing, writes us this card, fills this card out. It works but it's hell of a lot of work to do these cards. JUDGE PARIS: Mr. Pickus, are you 7 getting Mr. Scarpi to tell us what he's done with the cards? 10 MR. PICKUS: Yes, I'm going to ask 11 both of them who has the cards. JUDGE GLEASON: I would like to know 12 13 what the population is in both your counties just 14 within the EPZ MR. SCHMER: 23, 24 thousand, sir. 15 MR. SCALPI: 19 thousand for mine, 16 17 sir. JUDGE GLEASON: And are you saying 18 that on the 22 out of 23,000 would be physically 19 handicapped and would require transportation? 20 MR. SCHMER: That's what we have, sir. 21 JUDGE GLEASON: And you only a 80. 22 MR. SCALPI: I'd say I got about 80, 23 you know, moving this thing all the time. But 24

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most of our information comes from the cards or

- 1 from the Office of the Aging where we verify what
- 2 kind of -- what's wrong with these people, you
- 3 know, what I mean? A lot of times we get a card
- 4 filled out and the card has no meaning. It says "I
- 5 need transportation." So we check back, we talk
- 6 to the person. First time, like Phil says on the
- 7 telephone. Then we even go to the point of making
- 8 a call to see how handicapped this person is. I
- 9 do have one particular problem at this time is I
- 10 have a deaf person, a deaf person and we are
- 11 working on what to do with this. That's the only
- 12 thing I'm stimied with right now. The rest of
- 13 them we can take care of.
- 14 Q. Mr. Schmer, you indicate that you
- 15 have an ongoing effort to try to reach these
- 16 people. What else have you done other than used
- 17 the post cards on the brochure to try to reach
- 18 people who might need help or further information?
- 19 A. (Witness Schmer) As I indicated we
- 20 make this clear when we give our slide
- 21 presentation in the local jurisdictions. We
- 22 contacted the local police chiefs, the ambulance
- 23 people and the utility companies who are usually
- 24 aware of infired.
- 25 Q. Have you made any effort to place ads

- 1 in newpapers or telephones books or --
- 2 A. (Witness Schmer) Yes, yes we did.
- 3 About six months ago we ran ads in three or four
- 4 of the local newpapers seeking this type of
- 5 information, and we got a tremendous response, but
- 6 in analyzing it, we found out that 95 percent of
- 7 the response came from people living outside the
- 8 EPZ.
- 9 So we sent them a letter telling them
- 10 that we received their card and are aware of that
- 11 they are outside the EPZ.
- 12 Q. Who actually has the custody of the
- 13 special needs cards in Orange County?
- 14 A. (Witness Schmer) I do. The
- 15 information on these cards is also in the hands of
- 16 our transportation officer.
- 17 Q. Are you aware that there's a toll
- 18 free number for assistance concerning radiological
- 19 emergency planning contained in the brochure
- 20 that's been distributed?
- 21 A. (Witness Schmer) Intimately familiar.
- 22 It's right in back of my head.
- 23 Q. Who answers the phone in Orange
- 24 County when they dial that toll free number?
- 25 A. (Witness Schmer) I do. If I'm not in

- 1 the room, my secretary does or if she's not there,
- 2 one of the other full-time people.
- 3 Q. Mr. Scalpi, let's turn to you. What
- 4 kind of arrangements have you made with respect to
- 5 the mobility-impaired or otherwise handicapped
- 6 people in the Putnam County portion of the EPZ?
- 7 A. (Witness Scalpi) We have them all
- 8 listed in my office, and we have the cards all
- 9 separated, and each different group that needs
- 10 different kinds of transportation is separated,
- 11 and each month we have to check on this list to
- 12 make sure that they are still there. We have to
- 13 go by the cards that come in on who needs the
- 14 service. So we keep -- this is a hot thing we
- 15 keep going all the time.
- 16 O. Have you made any additional efforts
- 17 besides the distribution of the brochure to try to
- 18 reach people in your county regarding assistance?
- 19 A. (Witness Scalpi) Yes. We had an ad
- 20 in the paper. We had an ad in the paper, and we
- 21 are -- most of our incapacitated people are
- 22 elderly, and the Office of the Aging has a ready
- 23 list of them.
- Q. Who answeres the toll free number
- 25 contained in the brochure in Putnam County?

- A. (Witness Scalpi) My secretary.
- Q. Mr. Schmer, do you believe that you
- 3 have enough buses available to respond to those
- 4 groups listed in contention 3.10?
- 5 A. (Witness Schmer) Yes.
- 6 Q. And do you believe --
- 7 A. (Witness Schmer) In addition, if I
- 8 may, I'd like to point out, I'm not familiar with
- 9 the details of this, but our county did get a
- 10 grant from the federal government to purchase
- 11 these types of buses for different jurisdictions
- 12 within the county, but it's under county control,
- 13 and when I become aware of this, I discussed this
- 14 with the county exec, and he directed the person
- 15 that works up the contracts to have a statement in
- 16 the contract indicating that in the event of any
- 17 emergencies, these buses will be utilized by the
- 18 Emergency Servies in Orange County for these types
- 19 of missions.
- JUDGE GLEASON: This is a community
- 21 document?
- 22 MR. SCHMER: I believe it is, sir I
- 23 really don't know. I'm just aware that we have
- 24 these buses.
- JUDGE PARIS: Do the buses come with

- drivers? 1 2 MR. SCHMER: I don't believe so. 3 JUDGE PARIS: Where are you going to get the drivers? 4 MR. SCHMER: I could find out, sir. 5 I don't have the answer to that question. 7 JUDGE PARIS: Does someone have the answer to that question? MR. SCHMER: I could make a phone 10 call and find out. 11 JUDGE PARIS: I just want to know if someone has drivers that they can produce if you 12 13 need them this afternoon. 14 MR. SCHMER: I'm sorry. I thought 15 you were talking the new buses that will be coming in. In our plan we have lost bus companies that 16 17 have the drivers for these buses. They are on 18 board now in. We have been conducting training 19 for these people over the last year, year and a 20 half, teaching them the symmetry, a little bit about radiation, how to protect themselves in a 21 radiation environment, this type of thing.
- 23 So this has been an ongoing thing with our bus drivers in the county for a better 24 25 year.

22

- 1 Q. Do you believe that those drivers
 2 would respond if you had to call on them in a
 3 radiological emergency?
- A. (Witness Schmer) Well the

 indications are in the class room discussions that

 we have with this that once they become aware of

 the threat and just what the threat is, that there

 seems to be no doubt that they will respond.
- 9 Q. Mr. Scalpi, do you believe that you
 10 have sufficient bus capability in Putnam County to
 11 fulfill your county's obligation to the mobility12 impaired and otherwise handicapped people?
- 13 A. (Witness Scalpi) Yes, sir.
- Q. Do you believe that you have a sufficient number of drivers to drive those buses in the event you have to call upon them to respond?
- 17 A. (Witness Scalpi) Yes. I can give you 18 an example, if you want.
- 19 Q. Sure.
- A. (Witness Scalpi) We have one school
 system with 100 bus drivers, and one bus driver a
 couple years ago said no way would the bus drivers
 drive the bus. So I talked to the superintendent
 of this outfit, you know, the transportation
 superintendent of the school, and I said to him, I

said, "Well, you give me a hell of a lot of 1 problems here. I don't know what to do." 2 He says "That's just one person." 3 I said, "Why don't you ask for 4 volunteers and see how many people you can get to drive the bus?" He did that and I think about 88 7 said they would drive the bus, you know that's an indication -- actually I'm only using seven buses out of that school. 10 JUDGE PARIS: 88 out of 100 drivers volunteered to drive a bus? 11 MR. SCALPI: Yes, sir, but when the 12 news media, when the news media picked this up, 13 14 they only picked up this one person. They didn't research it very well. 15 16 Q. Mr. Schmer, we have heard some 17 testimony in this proceeding about a new transportation study that has either been done or 18 19 is being done in Orange County. Has there, in fact, such a study that's been done? 2.0 (Witness Schmer) Yes. Part of that 21 money that I indicated to you was received in 22 Orange County was done for this. We hired a 23 transportation group to do this, and what they did 24

25

was they went into a little bit more detail than

- we had in our transportation portion of the plan,
- 2 little corrections, some of the maps that we used
- 3 initially were wrong. I'm talking about
- 4 commercial type maps. They met with the local
- 5 police people in the jurisdictions, made those
- 6 little corrections that had to be made, published
- 7 strip maps, worked out and tied in the towing
- 8 companies, refueling and maintenance, et cetera,
- 9 to make sure that these things would be taken care
- 10 of on the evacuation routes. I feel very
- 11 comfortable with what they have done.
- 12 Q. Are you aware of whether this study
- 13 may be used in other counties in the Indian Point
- 14 EPZ?
- 15 A. (Witness Schmer) I honestly don't
- 16 know. I believe -- this is just conjecture on
- 17 my part. I heard that Westchester County is
- 18 looking to have a study like this and that they
- 19 have received bids from two or three such
- 20 organizations, but I really don't know what's
- 21 going on in other jurisdictions.
- 22 O. Contention 4.1, the plume exposure
- 23 pathway EPZ should be expanded from its present
- 24 10-mile radius in order to meet local emergency
- 25 needs and capabilities as they are affected by

- such conditions as demography, topography, land characteristics, access routes an jurisdictional
- Do either of you gentlemen have a
- 5 position on this contention?

boundaries.

- 6 A. (Witness Schmer) Again, not being a
- 7 scientist or nuclear physicist -- Lord knows I
- 8 don't think I know how to spell it so I depend on
- 9 these people for their inputs, but I have read at
- 10 least two realistic estimates of consequences of
- 11 nuclear accidents. These are studies that were
- 12 done by research groups. Their indications are
- 13 that the EPZ should be reduced.
- In fact, I have personally seen an
- 15 in-house recommendation from one NRC
- 16 representative to another recommending that the
- 17 ten-mile EPZ be reduced to five miles. So I don't
- 18 know how to respond to that, other than to --
- 19 O. Let me --
- JUDGE GLEASON: I really don't know
- 21 the relevancy of this witness's testimony in terms
- 22 of questions under question four.
- MR. PICKUS: Let me ask him more
- 24 specific question, your Honor.
- JUDGE GLEASON: Yes, I wish you would

- 1 really, we -- we have been going for quite a
- 2 while. We got to get cross-examination.
- 3 MR. PICKUS: I understand that, Judge,
- 4 and there are only a few more contentions left.
- 5 Q. Did you participate in designing the
- 6 EPZ, as it now exists in Orange County?
- 7 A. (Witness Schmer) Well, the basic
- 8 guidelines for the EPZ is a federal regulation.
- 9 However, the -- it reads on or about ten miles, so
- 10 we made some minor changes. In other words, you
- 11 don't want an EPZ to go directly through a
- 12 jurisdiction. People on one side of the street
- 13 may be uncomfortable if people on the other side
- 14 of the street are being evacuated. So what we
- 15 have done is we have either included or excluded
- 16 jurisdiction area, this sort of thing to put
- 17 peoples' minds at ease.
- In addition, the thruway is was right
 - 19 on the border of the ten-mile EPZ so we utilized
 - 20 the eastern portion of the thruway as the border
 - 21 line for the EPZ in that area so that the thruway
 - 22 could be utilized for evacuation routes, which
 - 23 would enhance evacuation.
 - Q. Do you believe in designing the EPZ
 - 25 for Orange County, then, you took these five or

- 1 six factors such as demography, topography, land
- 2 characteristics into account?
- 3 A. (Witness Schmer) Oh, yes.
- 4 Q. Mr. Scalpi, did you participate in
- 5 actually drawing the line around the EPZ in Putnam
- 6 County?
- 7 A. (Witness Scalpi) Yes, we did.
- 8 O. Did you take these factors into
- 9 account?
- 10 A. (Witness Scalpi) Yes, we did.
- 11 Q. Contention 4.2, the following
- 12 specific feasible offsite procedures should be
- 13 taken to protect the public. A, potassium iodide
- 14 should be provided in an appropriate form for all
- 15 residents in the EPZ. Do either of you have a
- 16 position on that?
- 17 A. (Witness Schmer) I feel that the
- 18 state's position is correct in that the potassium
- 19 iodid should be provided for emergency workers
- 20 only.
- 21 O. Do you have a basis for that? Have
- 22 you done any research of your own?
- 23 A. (Witness Schmer) Yes. I attended a
- 24 three day seminar at Brook Haven National Labs
- 25 about three years ago and the scientists that

- 1 presented the program in giving their technical
- 2 reasons for their findings, this was their
- 3 opinions.
- 4 Q. Mr. Scalpi, do you have any position
- 5 on potassium iodide?
- 6 A. (Witness Scalpi) No, I don't have an
- 7 learned opinion on that. I go by the state's
- 8 rules on it.
- 9 Q. B, adequate sheltering capability
- 10 should be provided for all residents in the EPZ.
- 11 Let me ask your positions on that particular
- 12 contention.
- 13 A. (Witness Schmer) If the type of
- 14 releases we can expect are those that are in the
- 15 federal guidelines that we have and you analyze
- 16 the type of structures that we have in the EPZ and
- 17 the protection factors involved, I believe it's
- 18 adequate if the people are trained properly, such
- 19 as in the summer, turning off air conditioners,
- 20 this type of thing. So I believe that the shelter
- 21 capacity in the existing structures are adequate.
- Q. Have you actually done a sheltering
- 23 study in your county?
- 24 A. (Witness Scalpi) Well --
- MR. SCHMER: Well, we had the Army

- 1 engineers do it but it took about two years. It
- 2 was more war related aspects which have a much
- 3 higher potential for radiation releases than this.
- 4 So the facilities exist.
- 5 Q. Mr. Scalpi, do you have a position on
- 6 that?
- 7 A. (Witness Scalpi) Well, I feel like
- 8 Phil does, that a home in a basement in a home, in
- 9 a closet, under a table is adequate for this
- 10 particular thing, because I don't think you would
- 11 want to use one of our fallout shelters. We have
- 12 fallout shelters too. I don't think you'd want to
- 13 use them for something like this, because they are
- 14 as scarey as war.
- 15 MR. PICKUS Will the Board forgive me
- 16 if I skip sub C since it's not something that
- 17 these gentlemen would know be knowledgeable of?
- 18 JUDGE GLEASON: Is that a facetious
- 19 comment Mr. Pickus?
- MR. PICKUS: No. It's very sincere.
- JUDGE GLEASON: I see.
- MR. PICKUS: I'm trying to be
- 23 inclusive so it doesn't look like I'm being
- 24 selective but I figure I might as well skip C
- 25 because it deals with onsite license conditions.

- 1 Q. D, the roadway network should be
- 2 upgraded to permit successful evacuation of all
- 3 residents in the EPZ's before the plume arrival
- 4 time. Have a position on that?
- 5 A. (Witness Schmer) What do they mean by
- 6 upgraded.
- 7 Q. Well, I can't put words in their
- 8 mouth, Mr. Schmer, but I presume -- let me ask
- 9 you this question: Do you believe that the
- 10 roadway network is sufficient right now to sustain
- 11 the evacuation travel time estimates that are
- 12 presently contained in the plan?
- 13 A. (Witness Schmer) Well, the estimates
- 14 were based on the roadway conditions as they exist. If
- 15 as time goes on the roads are improved, made wider
- 16 new roadways put in, this would, you know, cut
- 17 down the time it would take to evacuate, but the
- 18 estimates are based on the road network as it
- 19 presently exists.
- 20 Q. Mr. Scalpi, do you have a position?
- 21 A. (Witness Scalpi) Well, I feel the
- 22 same as I said before, all roads could use
- 23 improvement. I guess that's why the president is
- 24 putting a nickel a gallon on gas tax on gas
- 25 association he can do better by the roads, so all

- 1 the roads in the US need improvement. Do I think
- 2 they could use these for evacuation, yes, I do.
- Q. Incidentally, are either of you aware
- 4 of any road improvements that are planned for your
- 5 counties within the EPZ?
- 6 A. (Witness Schmer) Not off the top of
- 7 my head, no.
- MR. SCALPI: Route 9, Route 9 down by
- 9 Peekskill, they are doing a lot of widening down
- 10 there. They have improved that road considerably.
- 11 There's quite a few roads on schedule for being
- 12 done in Putnam County. At the beginning of this
- 13 year, we have the distinction of having one of the
- 14 ten worst roads in the US in Putnam County.
- 15 That's 301. They are going to start working on
- 16 that the first part of this year.
- 17 O. Contention 4.7, the Emergency Plan
- 18 should be upgraded to provide more adequate
- 19 methods for alerting and informing persons who are
- 20 deaf, blind, too young to understand the
- 21 instructions or who do not speak English.
- Do either of you gentlemen have a
- 23 position on this?
- 24 A. (Witness Schmer) I would like to make
- 25 that all inclusive, any Emergency Plan or director,

- anything you want to call them who indicates that
- 2 they got the plan, the cats meow that this is
- 3 going to solve all our problems is a fool. The
- 4 plan is never perfect. It's always undergoing
- 5 improvement. This is why I test them. You are
- 6 always going to find, you know, something in the
- 7 plan that needs improving. It's an ongoing
- 8 process. To plan an Emergency Plan is never
- 9 completed. You just have to be honest in that,
- 10 you know, with that feeling and run your tests
- 11 subportions of the plan, run your overall plan at
- 12 least once a year and seek out these weak points
- 13 and improve on them.
- 14 Q. Mr. Scalpi, do you have a position on
- 15 that contention?
- 16 A. (Witness Scalpi) Well, this
- 17 particular plan, I think is something special.
- 18 Just before I come down here this morning to get a
- 19 few thoughts, I went through my diary for this
- 20 year and last year, and I don't think a day goes
- 21 by in the office where we are not involved in some
- 22 part of this plan, some part of working on this
- 23 plan or somebody calling us up or working with the
- 24 utility or working with somebody, almost on a
- 25 daily basis we have something to do with this plan,

- 1 which I think is outstanding, you know.
- 2 So I haven't looked at my war plan in
- 3 two years. Maybe I'll have the luxury of getting
- 4 back to that, you know, after these hearings.
- 5 Q. Mr. Schmer, do you believe that you
- 6 now have the capability to protect the citizens of
- 7 Orange County in the event that there's a
- 8 radiological emergency at Indian Point?
- 9 A. (Witness Schmer) I do. I believe
- 10 that we have the capability of protecting people
- 11 for radiological incidence in Orange County much
- 12 better than we do for other type of disasters that
- 13 happen more often. There are people being mamed
- 14 and killed almost daily in this country in
- 15 chemical accidents and I think that we can respond
- 16 much more effectively to a radiation incident
- 17 because of the effort that's put into this.
- 18 Q. Mr. Scalpi, do you believe that you
- 19 have the capability today to protect the health
- 20 and safety of the population of Putnam County in
- 21 the event that there might be a radiological
- 22 incident at the Indian Points Plants?
- 23 A. (Witness Scalpi) I do.
- MR. PICKUS: Judge, I have no further
- 25 questions of these witnesses. They are available

- 1 for cross-examination.
- JUDGE GLEASON: What have you got
- 3 your hand up for, Mr. Brandenburg?
- 4 MS. FLEISHER: Your Honor --
- JUDGE GLEASON: Excuse me.
- MR. BRANDENBURG: These are not
- 7 witnesses of Con Edison, Mr. Chairman. They are
- 8 here as witnesses of the Power Authority. Based
- 9 from the answers I have heard, I have three
- 10 questions that have not been asked.
- JUDGE GLEASON: Make them very brief
- 12 because you are taking a long time.
- MS. FLEISHER: I want to make a
- 14 motion to strike the questions that Mr. Pickus has
- 15 asked on the basis of No. 3 and No. 4, because of
- 16 the fact that these gentlemen are not experts. I
- 17 would contend that Mr. Scurti, Mr. Holland, Mr.
- 18 Kralik and so forth from other counties were
- 19 experts but you ruled in the last when we objected
- 20 and Mr. Drs. Dynes and Lecker were on, that their
- 21 testimony was expert and they have background to
- 22 sustain their expertise. You have asked -- Mr.
- 23 Pickus has asked these men about things like
- 24 sheltering which they have no expertise in. I
- 25 think that unless their testimony is taken in that

- l vein, that it should be stricken because we have
- 2 had to sit here and listen to their opinions,
- 3 their hearsay, and if Mr. Brandenburg pursues it
- 4 further will take even more time and I'm asking
- 5 now that you move to strike the testimony that Mr.
- 6 Pickus asked them on Questions 3 and 4.
- JUDGE GLEASON: Well, we have to deny
- 8 your motion, Mrs. Fleisher. You are going to have
- 9 an opportunity to cross-examine them, and these
- 10 people are in charge of emergency planning for
- 11 their two counties, and they are entitled to talk
- 12 with respect to what the plans are and what their
- 13 opinions are with respect to the plans.
- MS. FLEISHER: Your Honor, I didn't
- 15 ask to strike all their testimony only that that
- 16 Mr. Pickus asked them about Questions 3 and 4.
- JUDGE GLEASON: I understand that. .
- MR. BRANDENBURG: I'll be very
- 19 brief, Mr. Chairman.
- JUDGE GLEASON: I might say further,
- 21 Mrs. Fleisher, that this Board is capable of
- 22 weighing the testimony of the witnesses.
- MS. FLEISHER: I understand.
- 24 CROSS-EXAMINATION
- 25 BY MR. BRANDENBURG:

- 1 Q. Gentlemen, in your earlier answers
- 2 there were numerous references to training that
- 3 your rad 'ological emergency response personnel
- 4 have received in your respective counties. I was
- 5 wondering if you could give us some overview of it.
- 6 How many workers, how many hours of training and
- some description of the nature of the training,
- 8 something of that sort.
- 9 A. (Witness Schmer) Are you talking, sir,
- 10 about our team, our radiological monitoring team
- 11 or the training given to local fire police
- 12 ambulance?
- 13 O. All of it. Give us some overview of
- 14 it.
- JUDGE GLEASON: Sir, speak into the
- 16 microphone because you are really answering his
- 17 question but you are answering to us and the
- 18 reporter.
- MR. SCHNER: Sorry.
- 20 A. (Witness Schmer) With reference to
- 21 the counties radiological response operations team,
- 22 my people undergo training almost every Wednesday
- 23 evening of the year. In addition, these, the
- 24 preponderance of these people have received
- 25 resident courses of instruction as I indicated at

- 1 the Lowell University Radiological Schools, the
- 2 State Radiological Schools and the Federal
- 3 Government's Radiological Schools at Emmitsburg,
- 4 Maryland. You probably know it as dose assessment
- 5 and the Radiological Emergency Response Operations
- 6 training at the Las Vegas nuclear test sites.
- 7 Q. How about people that would be
- 8 firemen, policemen, things of that sort that would
- 9 be called upon to respond in the event of a
- 10 radiological accident?
- 11 A. (Witness Schmer) Right. We conduct a
- 12 minimum of two 16 hour courses per year for these
- 13 types of people. When we get involved in a
- 14 specific training. We give them what we call a
- 15 normal eight hour course of instruction. We
- 16 usually, when the chief asks how much training do
- 17 we need, my question to him is how proficient do
- 18 you want to become? The more proficient you want
- 19 to become, the more training we will give you. We
- 20 get into training whereby we even give written
- 21 examinations and those that pass written
- 22 examinations would get practical examinations with
- 23 the radiological equipment and radiation.
- 24 We use could 60 for this.
- JUDGE GLEASON: How many people have

- gone through your 16 hour course?
- 2 MR. SCHMER: Since I'm on board, I
- 3 would say a minimum of 100 a year for eight years,
- 4 sir.
- 5 Q. Mr. Scalpi, could you give us some
- 6 overview of the number and quality of people who
- 7 have been trained, the nature of their training
- 8 and the number of people who have been trained in
- 9 your county?
- 10 A. (Witness Scalpi) I'd say in the past
- 11 six months we have trained about 500 people, in
- 12 all different aspects, like Phil says,
- 13 radiological, fire and rescue Here is my training
- 14 matrix for the past three months. It's -- if
- 15 you would like to have that. I think it explains
- 16 what I have done.
- MR. BRANDENBURG: Mr. --
- 18 MR. PICKUS: The Power Authority
- 19 would be happy to offer it as an exhibit, your
- 20 Honor, if the Board would like.
- JUDGE GLEASON: I don't know whether
- 22 the Board would like it because the Board can't
- 23 see it. If you want to offer it -- identify it
- 24 and offer it, we'll take a look at it.
- 25 O. Mr. Scalpi you said 500 people in the

- 1 past six months. Since the new radiological
- 2 Emergency Plan went into affect going back about
- 3 two years or so, how many people in Putnam County
- 4 have received radiological emergency response
- 5 training?
- A. Radiological, I'd say about 150, 160.
- 7 Q. Approximately how many hours has the
- 8 period of curriculum on the subject of radiation?
- 9 A. Average?
- 10 Q. Yes.
- 11 A. (Witness Scalpi) 16. .
- 12 Q. You gentlemen are aware, I believe,
- 13 that under the Radiological Emergency Response
- 14 Plans for your respective counties, the county has
- 15 called upon to perform dose assessment and field
- 16 monitoring; is that correct?
- 17 A. (Witness Schmer) Yes, sir.
- 18 Q. Mr. Schmer, starting with you, could
- 19 you characterize for us your county's capability
- 20 to perform the dose assessment and field
- 21 monitoring required by the plant?
- A. (Witness Schmer) Let me just say this.
- 23 I think my people are equally as qualified as the
- 24 monitoring team used by the utilities. These are
- 25 the people that I indicated train every Wednesday

- 1 night. We have running training for them every
- 2 Wednesday night. These are the people that we
- 3 have sent off to these resident courses of
- 4 instruction. I'm not talking about the people we
- 5 trained in the local jurisdictions, you know, to
- 6 respond to their type of missions, but our
- 7 radiological monitors. It's an ongoing
- 8 instruction year round.
- 9 Q. Mr. Scalpi, could you characterize
- 10 for us the Putnam County's dose assessment and
- 11 field monitoring capabilities?
- 12 A. (Witness Scalpi) I have pretty much
- 13 the same as Phil. I have got a radiological
- 14 officer who is a physics teacher, in Highland
- 15 Central School, and he took a sabatical four years
- 16 ago and went to Lowell Mass and done the nuclear
- 17 study. Then he spent the summer in Brook Haven
- 18 lab. He's my radiological officer which the state
- 19 give me \$10,000 for for a part time job.
- 20 I also have another physics teacher
- 21 as his assistant who has background in nuclear and
- 22 biological and they run our teams and I think I
- 23 said something about the teams before, they are
- 24 out of my RACES group. And they are the field
- 25 monitors. I have 25 of them under training all

- 1 the time, and out of that, I pick three teams of
- 2 four to go out and do my radiological monitoring.
- Q. I have one last question, gentlemen,
- 4 that relates to money. I think in your earlier
- 5 answers you referred to both the Chapter 708 money
- 6 that is provided by state law for radiological
- 7 emergency planning purposes. I would like to ask
- 8 you to only answer with respect to the Nonchapter
- 9 708 money, that is money that has been given to
- 10 your respective counties for radiological
- 11 emergency planning that is outside the Chapter 708
- 12 process and ask you if you can tell us that each
- 13 of your counties has received in Nonchapter 708
- 14 money and for what purpose those monies have been
- 15 expended.
- 16 A. (Witness Schmer) I didn't get monies
- 17 per se. We got it in the form of equipment and
- 18 aid. I couldn't give you a figure. I just don't
- 19 know the prices of this equipment. I wish I
- 20 earned it every year. This computer, very
- 21 elaborate computer, this has got to go for quite a
- 22 bit of money. A telex machine whereby you put a
- 23 letter in it and recieve it someplace else, within
- 24 20 seconds, we have a 20 second telex machine and
- 25 a two -- an one minute telex machines at our

- 1 disposal.
- The communications systems, the
- 3 telephone -- additional telephones that they
- 4 have given us in the EOC in addition to two
- 5 radiological kits, I would estimate based on the
- 6 equipment that I have purchased recently, each one
- 7 of these kits has got to be worth six or seven
- 8 thousand dollars. So although I couldn't give you
- 9 a dollar figure there's a lot of money tied up in
- 10 the equipment that they have given us.
- 11 Q. Mr. Scalpi, could you tell us either
- 12 the money or the equipment that Putnam County has
- 13 received extrensic to the chapter 708 funds that
- 14 you received?
- 15 A. (Witness Scalpi) Whatever Phil said,
- including they give me \$30,000 for an assistant at
- 17 the beginning of the year, to contract for a year
- 18 to work with me, to work for me, hope to work with
- 19 me, and I understand that they are going to do
- 20 that next year, so that \$30,000 plus the slide
- 21 show that they give us, offhand, I'd say they give
- 22 us \$100,000 outside of 708 money.
- MR. BRANDENBURG: That's all I have,
- 24 Mr. Chairman.
- JUDGE GLEASON: All right. Mrs.

- 1 Fleisher?
- MS. FLEISHER. Thank you, sir. I
- 3 believe the gentlemen know me and need no
- 4 introduction; is that right?
- JUDGE GLEASON: I might say that, Ms.
- 6 Potterfield, if you would like to do some
- 7 cross-examination, I will allow you an opportunity
- 8 after Mrs. Fleisher gets through.
- 9 MS. POTTERFIELD: That you. Miss
- 10 Posner will be doing some. Thank you, your Honor.
- JUDGE GLEASON: Go ahead Mrs.
- 12 Fleisher.
- 13 CROSS-EXAMINATION
- 14 BY MRS. FLEISHER:
- 15 Q. My questions will be addressed to Mr.
- 16 Schmer only and in view of the fact that we have a
- 17 short time, Mr Schmer, let's see if we can't be as
- 18 concise as possible, please. If the plan for
- 19 Orange County under schools, Appendix H, page 1, I
- 20 don't think you need to look to it to answer my
- 21 question, Highland Central School District, the
- 22 middle school and the high school, wouldn't you
- 23 say they had the largest population of school
- 24 enrollment in your EPZ?
- 25 A. (Witness Schmer) Mrs. Fleisher they

- 1 are not in the EPZ.
- 2 Q. I was just going to ask that because
- 3 it says here the distance from the plants is ten
- 4 miles. All right. Well, then, the next is the
- 5 Central Valley ES. It says, elementary school,
- 6 right, that says 9.75 from the plant. Do you
- 7 consider it in the EPZ?
- 8 A. (Witness Schmer) Central Valley High
- 9 School?
- 10 Q. Elementary School.
- 11 A. (Witness Schmer) I don't believe
- 12 that's in the EPZ.
- 13 Q. Well, then --
- MR. PICKUS: Judge, could I just --
- 15 MS. FLEISHER: Excuse me, sir, we are
- 16 getting down to what schools are in the EPZ, Mr.
- 17 Schmer. Highland Falls Central School District, 7
- 18 it says here, miles.
- JUDGE GLEASON: That's in the EPZ
- 20 MR. PICKUS: I'm sorry. I just want
- 21 to establish which document Miss Fleisher is
- 22 reading from. I don't believe that it's the
- 23 latest version of the Orange County Emergency Plan,
- 24 and I would prefer her to at least show it to the
- 25 witness so that he can identify it.

MS. FLEISHER: No, sir it's not 1 necessary to take up my time because first of all 2 3 I got it out of the box right over there. If it's not the latest then somebody has been remissent in not giving the judges the latest one. 5 Secondly I'm only trying to establish 6 7 in Mr. Schmer's answering what schools are in the EPZ. 9 MR. PICKUS: Judge, with all due respect I'm not trying to use up the witness's 10 time? The box that you took it from is a Power 11 Authority box, and if that is in fact the box that 12 you took it from, then it is not the latest 13 version of the Emergency Plan. I simply want to 14 establish that on the record. I'm not trying to 15 take it out of your time. 16 17 MS. FLEISHER: It doesn't matter, Mr. Pickus, because I'm trying to only to ask what 18 schools are in the EPZ. I have no other list. I 19 was unprepared today because I didn't know what I 20 was coming up. 21 MR. PICKUS: Judge, all I want is for 22 the witness to identify the document. 23 24 MS. FLEISHER: I have identified it. JUDGE GLEASON: Would you identify it 25

- 1 Mrs. Fleisher?
- MS. FLEISHER: It's called the Orange
- 3 County are ERP and it's on page 81 as I said
- 4 before.
- 5 Q. Mr. Schmer?
- 5 JUDGE GLEASON: Mrs. Fleisher, what
- 7 is the date of the document?
- 8 MS. FLEISHER: Well, this says August
- 9 8, '81.
- JUDGE GLEASON: All right. Now ask
- 11 your question.
- 12 Q. Mr. Schmer, how many schools are in
- 13 the ten-mile EPZ?
- 14 A. (Witness Schmer) I couldn't say
- 15 offhand without referring to my --
- 16 Q. Let me read you some and tell me if
- 17 they are. The nursery school of Highlands route
- 18 is within the Montgomelry. Isn't that in the EPZ?
- 19 A. I don't believe we have a nursery
- 20 school in our --
- 21 Q. Well, then that's one less. Right.
- 22 Okay. The private school called Sacred Heart of
- 23 Jesus Elementary School in Highland Falls. Is
- 24 that in the EPZ?
- 25 A. (Witness Schmer) It's in the Highland

- 1 Falls; it should be in the EPZ.
- Q. Then we have James O'Neill High
- 3 School in Highland Falls?
- A. (Witness Schmer) I believe that's in
- 5 the EPZ.
- 6 Q. We have the Highland Falls Middle
- 7 School in Highland Falls and we have the Highland
- 8 Falls 'ementary School. From what you have told
- 9 me, there are five schools, four schools in the
- 10 EPZ and the total is two, five, is less than 1,200
- 11 students. Do the buses stay at the schools all
- 12 day long waiting for the students to go home?
- 13 A. (Witness Schmer) No, they do not.
- 14 O. Do the drivers take the buses away
- 15 after they have delivered the children?
- 16 A. (Witness Schmer) Yes, they do.
- 17 O. When would one find those buses and
- 18 drivers in the middle of the day if something
- 19 happens?
- 20 A. (Witness Schmer) I couldn't say
- 21 offhand. do Do I know that West Point Tours and
- 22 the other bus companies that supply the buses for
- 23 the schools have radios in the buses, and we have
- 24 been insured -- in fact, we have letters of
- 25 agreement being signed on these now that if these

- 1 buses are needed either during other than school
- 2 hours or during school hours, they would be made
- 3 readily available to respond to the schools.
- 4 Q. Do you have letters assuring you of
- 5 that?
- 6 A. (Witness Schmer) We had put together
- 7 a letter that the county attorney wasn't happy
- 8 with, so he's rewriting the letter of agreement.
- 9 It should be ready this week, hopefully by next
- 10 week, at which time the bus companies will sign
- 11 these letters of agreement.
- 12 Q. And do you have any agreements for
- 13 the drivers?
- 14 A. (Witness Schmer) No, other than the
- 15 insurance he is of the owners of the bus companies
- 16 and meeting with the bus drivers themselves on an
- 17 one to one basis.
- 18 Q. When you gave the total population in
- 19 the EPZ in Orange County, were you including West
- 20 Point?
- 21 A. (Witness Schmer) Negative. West
- 22 Point has their own plan for Indian Point. Many
- 23 of them --
- Q. Just a minute, sir. I asked you --
- 25 I'm aware of that.

MR. PICKUS: Judge --1 -- if that included West Point in 2 population number. I didn't ask you whether or 3 not they had a plan. A. (Witness Schmer) If you wanted a 5 truthful answer, let me try -- I can't answer that yes or no. Many of the people that work at West Point live in the EPZ so they would be included. Many of the people that are at West 10 point do not live in the EPZ and would leave West Point or the EPZ after their normal workday. 11 The institution known as West Point 12 13 Academy, what population is it? 14 (Witness Schmer) 12 thousand. A . 15 Did you include that in the figure of 0. the your population for the EPZ? 16 17 (Witness Schmer) Negative. Α. No. Okay. They have their own plan? 18 0. 19 (Witness Schmer) Yes, ma'am. Α. 20 You are in no way responsible for 0. 21 what they do? 22 (Witness Schmer) We work together. I mean it would be rather futile to have them 23 24 leave West Point and have them hit Orange counties

roads without us doing what they are doing so

- 1 there's a tremendous amount of cooperation,
- 2 coordination going on with West Point. In fact
- 3 the liason officer is in our EOC during exercises
- 4 and during planning sessions.
- Q. In the section G of this same exhibit,
- 6 volume one of the REPG, if one adds up the sectors
- 7 of populations, we do not get the figure you have
- 8 given by far. Would you say that those need
- 9 correction too or how old you research that?
- 10 A. (Witness Schmer) What figure do you
- 11 come up with?
- 12 Q. Well, we came up with about 6,000
- 13 people.
- 14 A. (Witness Schmer) In the EPZ?
- 15 Q. Yes. In the sectors, part of N and M,
- 16 N, P and Q.
- 17 A. (Witness Schmer) Well, we work in
- 18 terms of ERPs. Can you give me the figures in
- 19 terms of ERPs?
- 20 Q. No. I haven't had the chance to do
- 21 that sir. As I said I don't know what we were
- 22 going to be faced with today?
- 23 A. (Witness Schmer) Then I would
- 24 respectfully request that you give me time to look
- 25 at it.

- 1 Q. Let's pass onto the next question if
- 2 we may. Does the Dayliner nonstop unload people
- 3 on tours through West Point?
- 4 A. (Witness Schmer) Yes, they do at Bear
- 5 Mount State Park.
- 6 Q. How many people --
- 7 A. (Witness Schmer) I believe --
- 8 Q. -- might be on a tour at one time?
- 9 A. (Witness Schmer) I believe the figure
- 10 for the largest one would be 3,000, if my memory
- 11 service me correctly.
- 12 Q. What provisions -- the boat doesn's
- 13 wait there, does it?
- 14 A. (Witness Schmer) No. It goes up to
- 15 another dock.
- 16 Q. What provisions would you have for
- 17 caring for those 3,000 people if something should
- 18 occur while the boat had left?
- 19 A. (Witness Schmer) The new
- 20 transportation plan that we have completed
- 21 addresses this. If we went into a scenario
- 22 whereby we had to evacuate, the boat would be
- 23 brought back to the dock. The people would be
- 24 evacuated. Now, dependent upon when it is in the
- 25 scenario, we are assuming the worst case scenario

- 1 and the coast guard would would not permit the
- 2 Board to head south towards New York City. The
- 3 nearest port for that boat would be in the
- 4 vicinity of Albany. The boat would be docked wp
- 5 in Albany and the people would be sent to
- 6 reception congregate care centers.
- 7 Q. They would be sent where?
- 8 A. (Witness Schmer) To reception and
- 9 congregate care centers.
- 10 Q. How?
- 11 A. (Witness Schmer) What do you mean?
- 12 Q. By bus?
- 13 A. (Witness Schmer) Yes, ma'am, which
- 14 would be taken care of up in the area of Albany.
- 15 Q. Could you do that within 30 minutes?
- 16 A. (Witness Schmer) I don't see the rush.
- 17 Are you talking about up in Albany? I don't see
- 18 the need for doing this in 30 minutes.
- 19 O. Well, you said that you could meet
- 20 50.47 and NUREG-0654. Indeed there is such a
- 21 requirement. Now, let's see.
- MR. PICKUS: Object, Judge.
- MR. SCHMER: Now I understand her
- 24 question. I'm sorry. I misunderstood you. You
- 25 mean you are talking evacuating the Emergency

- Planning zone. I believe those would be the people that would fall into that small percentage that would take more than the 15 minutes to alert. We can alert those people and notify those people well within 15 minutes. There's no problem with that, utilizing State Police, helicopters with loud speakers and civil air patrol planes. Just a minute, sir. That isn't what I asked. MR. PICKUS: I object to Mrs. 10 31 Fleisher interrupting the witness. MS. FLEISHER: I asked him to be 12 concise and he's not answering my question. I 13 asked him the question. Could the company remove 14 15 those people in 30 minutes. He's now telling me about the notification. I did not ask him about 16 17 that.
- JUDGE GLEASON: Mrs. Fleisher, what
 is your 30 minutes based on?
- 20 MRS. FLEISHER: The 30 minutes is based on a notification of 30 minutes.
- 마른 기계 중앙 아무리에서 아니라 되었다. 그런 보고 하네 아니라 하네요?

22

23 notification time. That's not the evacuation time.

JUDGE GLEASON: That's the

- MR. SCHMER: That's correct.
- MS. FLEISHER: Well, your Honor, I

- think it's presumed that if people know they have
- 2 to move in 30 minutes, that they are -- that
- 3 notification is not in itself sufficient. I'm not
- 4 going to argue.
- 5 JUDGE GLEASON: Mrs. Fleisher, it's
- 6 not a question of argueing. It's a question of
- 7 keeping the record straight. You are implying
- 8 from your question that people have to evacuate
- 9 within 30 minutes. And that is not a factual
- 10 statement. That is not a factual matter.
- MS. FLEISHER: Your Honor, I'm going
- 12 to find it and bring it up later then because I
- 13 have it. As I say I'm the most unprepared I have
- 14 ever been in my life. I think this is an
- 15 intolerable situation but I'm trying to make the
- 16 best of it. May I go forward. Let's drop this
- 17 one.
- JUDGE GLEASON: All right.
- 19 Q. In the hospitals that you have, are
- 20 there any in the EPZ?
- 21 A. (Witness Schmer) In the EPZ? I
- 22 don't believe so.
- 23 Q. You have Highland, Horten and you
- 24 said something about three earlier. Is there a
- 25 third hospital?

- 1 A. (Witness Schmer) Cornwall. Yes,
- 2 that's not in the EPZ.
- Q. How many beds are expressly set aside
- 4 for the decontamination of persons who might have
- 5 been contaminated?
- 6 A. (Witness Schmer) You are asking me a
- 7 question now and I could see us getting into a
- 8 long discertation on this. Let me answer your
- 9 question this way: The hospitals in Orange County
- 10 can handle much more radiation victims than they
- 11 can trauma victims from buses and truck accidents.
- 12 Would that suffice?
- 13 Q. No, it doesn't. Tell me how many
- 14 beds.
- 15 A. (Witness Schmer) I couldn't give you
- 16 an exact figure.
- 17 Q. Because I need to have it separated
- 18 beds from other areas if they have contaminated
- 19 individuals, is that not so?
- 20 A. (Witness Schmer) Yes, that would be
- 21 so.
- 22 Q. All right. Why don't you know, Mr.
- 23 Schmer?
- MR. PICKUS: Judge, I'm going to
- 25 object to that question.

- 1 JUDGE GLEASON: I think it's a
- 2 question.
- 3 MR. SCHMER: Let me answer.
- JUDGE GLEASON: Mrs. Fleisher, let me
- 5 rule on the objections. Now, if you want to take
- 6 over the entire proceeding, well, you can't do it.
- 7 That's all. The objection is denied. The witness
- 8 can respond to the question. Why don't you know?
- 9 MR. SCHMER: I really didn't bother
- 10 to go into this in too much detail, your Honor,
- 11 because the little research I did on this. I could
- 12 not find one hospital in the continental United
- 13 States and I have written to hospitals from coast
- 14 to coast and I have all this correspondance. I
- 15 could not one find one hospital in the United
- 16 States that on more than one occasion has treated
- 17 radiation victims.
- 18 Q. Mr. Schmer, have you asked at Good
- 19 Samaritan Hospital in Suffolk?
- 20 A. (Witness Schmer) I don't believe I
- 21 have. It's Good Samaritan in Suffolk? I don't
- 22 believe I have, no.
- 23 Q. Are you aware that there are and have
- 24 been radiation accidents at Union Carbide that
- 25 have been treated?

- 1 A. (Witness Schmer) No, I'm not.
- 2 Q. What plans do you have to check for
- 3 contamination of individuals?
- 4 A. (Witness Schmer) Pardon?
- 5 Q. How would you check whether or not
- 6 some individuals were contaminated during an
- 7 evacuation?
- 8 A. (Witness Schmer) Our procedure calls
- 9 for people to leave the EPZ and report to
- 10 reception centers. At the reception centers, we
- ll have our trained radiological monitors checking
- 12 these people as they go into the reception centers.
- 13 O. Have you done this in a drill?
- 14 A. Yes, we have.
- 15 O. How many people could you process per
- 16 hour?
- 17 A. It would be dependent upon the
- 18 scenario. If we had to evacuate all the EPZs in
- 19 the area, then we would call in all our
- 20 radiological monitors. I believe we can handle
- 21 anybody that would be evacuated.
- 22 0. What number would that be?
- 23 A. (Witness Schmer) I believe I gave you
- 24 the figure. We had approximately 24 thousand
- 25 people in the EPZ.

- 1 Q. Do you know how long it takes to
- 2 monitor one person with the county?
- 3 A. (Witness Schmer) If you do it
- 4 effectively and properly, three to four minutes.
- Q. And how many thousands of people then
- 6 would it take in how many hours?
- 7 A. (Witness Schmer) Well, let me ask
- 8 you this question. Do you really believe that
- 9 these 24 thousand people would all report to
- 10 reception centers in Orange County?
- 11 O. Sir --
- 12 A. (Witness Schmer) You know, we deal
- 13 and we are trying to be very logical in you know
- 14 operating a real world. I believe we have the
- 15 monitors trained that would handle the people that
- 16 would come up from the EPZ and require this
- 17 monitoring.
- 18 Q. You say you could, sir. I'm asking
- 19 you if you have.
- 20 A. (Witness Schmer) Yes. In fact, we
- 21 have trained far and an above what the scientists
- 22 have indicated could conceivably happen.
- 23 Q. Do you have any silver zeolite
- 24 filters?
- 25 A. (Witness Schmer) Yes.

- 1 Q. How many do you have, Mr. Schmer?
- 2 A. (Witness Schmer) We have zeolite
- 3 filters for every piece of equipment that would be
- 4 used for radiological monitoring.
- 5 Q. That would be for each -- you would
- 6 have a complete set for each team?
- 7 A. (Witness Schmer) Yes, and I might add
- 8 as considerable cost, about 11 hundred dollar per
- 9 kit.
- 10 Q. Have they protective clothing?
- 11 A. (Witness Schmer) Yes.
- 12 Q. Do you have clothing to give out to
- 13 persons who might be --
- 14 A. (Witness Schmer) Yes.
- 15 Q. Or at least plans for it?
- 16 A. (Witness Schmer) Yes.
- 17 Q. Route 17 M, is that four lanes wide?
- 18 A. (Witness Schmer) 17M is a four lane
- 19 highway, yes.
- 20 Q. It's limited access highway, is it
- 21 not?
- A. What do you mean by limited access.
- Q. Well, not every driveway comes out
- 24 into it. It has --
- 25 A. (Witness Schmer) I think you'll find

that the majority --1 2 Q. Access roads it to? A. (Witness Schmer) I tnink you'll find 3 that most of the roads in the EPZ would lead to 5 17M, yes. 6 Q Route 9W, is how long how wide? (Witness Schmer) I believe that's two 7 Α. lanes. Q. Are there parts that are in the EPZ? A. Pardon? 10 11 Q. No four lane parts in the EPZ's like around West Point? 12 13 (Witness Schmer) No, not in the 14 vicinity. 15 O. Cornwall all two lanes? (Witness Schmer) No. 16 Α. Has an island down the middle? 17 0. 18 (Witness Schmer) Yes. Α. And Route 17 West, is that a four 19 0. 20 lanes? (Witness Schmer) 17 West? 21 Α. 22 Yes? Q. (Witness Schmer) Is two lanes. 23 A . When does it become wider? 24 Q.

Pardon?

A .

- Q. When does it widen?
- 2 A. (Witness Schmer) Well, it is four
- 3 -- it has two lanes west and two lanes east.
- 4 Q. So I would consider that -- I'm
- 5 asking you, it's a four lane road then, is it not?
- 6 A. (Witness Schmer) Yes.
- 7 Q. All right. Can the Orange County
- 8 Police communicate by radio directly with the
- 9 Rockland Police?
- 10 A. (Witness Schmer) I really cannot
- 11 answer that question in that I don't know how many
- 12 of the local police departments can do this. I do
- 13 know that a number of the county police
- 14 departments are on this new State Police MRD
- 15 system.
- 16 Q. Can they all contact each other
- 17 within Orange County?
- 18 A. (Witness Schmer) Through our
- 19 communication center, Yes.
- 20 Q. That means they can't contact
- 21 directly; is that right?
- 22 A. (Witness Schmer) I don't believe all
- 23 can communicate directly with each other, no.
- Q. Did you notice the time that's given
- 25 for the evacuation from the EPZ which would be in

- 1 Appendix A in the RERP?
- 2 A. (Witness Schmer) I'm sorry. I didn't
- 3 hear your question.
- 4 Q. Have you seen the times under
- 5 different scenarios for the evacuation?
- 6 A. (Witness Schmer) Yes.
- 7 Q. Can you explain to me why it would
- 8 take ten hours to evacuate from your EPZ any place
- 9 in view of the fact that you have just stated that
- 10 there are good roads and you have all these buses?
- 11 A. (Witness Schmer) I don't have the
- 12 comfort of having the plan in front of me. Ten
- 13 hours, I believe, is excessive. I believe you are
- 14 looking at the worst case scenario. We have taken
- 15 it into consideration, some rather heavy
- 16 situations, snowstorms in the winter, football
- 17 games at West Point on a Saturday or a Sunday.
- 18 Q. Just a minute and I'll refresh your
- 19 memory with those.
- JUDGE PARIS: What are you looking at,
- 21 Mrs. Fleisher?
- JUDGE GLEASON: What page is that?
- MR. SCHMER: This is page 62.
- MS. FLEISHER: It's Appendix A in
- 25 volume one, and it's the last few pages in --

JUDGE PARIS: It's the --2 MRS. FLEISHER: I'm sorry, sir. I'll give you the book in a second. He's seen it and 3 I'll give it back to you. I guess we live with 4 it, so I expected everyone to know it. Just a 5 6 minute. MR. SCHMER: I believe, Mrs. Fleisher, read me the 8 9 MS. FLEISHER: Would you take his book so we can look at the same book? 10 11 MR. SCHMER: Yes. Let me have it. 12 MR. PICKUS: Taking all my hooks, Judge. 13 14 MR. SCHMER: I'm sorry. 15 MR. PICKUS: Better get the Grand 16 Jury back here. 17 MR. SCHMER: I believe Mrs. Fleisher 18 is reading the tables wrong, your Honor. For 19 instance, the particular one she pointed out to me 20 does not say 12 hours 20 minutes to evacuate. It's from 7.15 to 12.20. 21 22 MS. FLEISHER: Yes, you are right. 23 I'm sorry. I made a mistake. Q. Why would it even take that long? 7

to 12 is five hours.

24

- 1 A. (Witness Schmer) Why would it --
- Q. We are talking about school not in
- 3 session. We are talking about normal weather
- 4 conditions?
- 5 A. (Witness Schmer) I really don't
- 6 understand your question.
- Q. When you made corrections in the plan
- 8 to suit Orange County you didn't make any
- 9 corrections did you in table A-4?
- 10 A. (Witness Schmer) I don't believe so.
- 11 Q. Mr. Schmer, now that you have seen it,
- 12 do you think you could improve on table A-4?
- 13 A. (Witness Schmer) Well, you seem to
- 14 be upset because it's taking so long. This was an
- 15 honest evaluation of the road system and the time
- 16 that it would take to evacuate those people. If
- 17 it would make you happier to make it a lesser
- 18 amount of hours, I don't think I could do this and
- 19 be honest.
- JUDGE SHON: Mrs. Fleisher, if I can
- 21 interject myself for just a moment here. I think
- 22 that the table you are referring to I haven't seen
- 23 it exactly but these tables, as I recall them, are
- 24 tables that show what were the calculated
- 25 evacuation times that Parsons Brinkerhoff produced

- for these areas. They are not tables that
- 2 specified a particular time by which a thing must
- 3 be evacuated. I think Orange County itself would
- 4 have had no input into that or would you?
- 5 MR. SCHMER: Well, other than having
- 6 our own transportation officer run the routes and
- 7 working with Parsons Brinkerhoff on this, we were
- 8 in total agreement of what these tables, what
- 9 Parsons Brinkerhoff produced.
- JUDGE SHON: One of the questions
- 11 Mrs. Fleisher asked suggested to me she thought
- 12 you specified this must be evacuated in this
- 13 amount of hours.
- 14 MR. SCHMER: No.
- 15 MS. FLEISHER: Your Honor, those
- 16 tables mean something though. The times are upper
- 17 bound and lower bound and they give an indication
- 18 of the time that the person is supposed to be able
- 19 to be removed from the particular area in
- 20 particular conditions. I don't think that they
- 21 are there for no reason at all. All right.
- JUDGE SHON: I might also say that
- 23 these tables -- they are all constructed alike.
- 24 I was looking at one just last week. This one
- 25 hasn't got the same numbers in because it's not in

- 1 the same ERP but the footnotes all say the same
- 2 things.
- First of all, the two numbers that
- 4 are given for example 7.30 and 12.35 are not times
- 5 of day. They are numbers of hours.
- 6 MR. SCHMER: That's hours, that's
- 7 correct, sir.
- JUDGE SHON: As you assumed they are
- 9 to begin with.
- MS. FLEISHER: I believe I asked him
- 11 that. I said why was it five hours difference.
- JUDGE GLEASON: Okay. Let him go on,
- 13 Mrs. Fleisher.
- JUDGE SHON: Secondly, if you look at
- 15 footnote one, it says the upper bound evacuation
- 16 times are representative of the situation where
- 17 capacity restrictions adversely affect traffic
- 18 flow of mode stational operational readiness a low
- 19 degree of cooperation with the public occurs.
- 20 What they are saying is that the reason it took 12
- 21 hours, which I think Mr. Schmer is not the man to
- 22 elucidate, but the reason it took so many hours
- 23 was because they felt so many things might go
- 24 wrong, but that isn't something he normally would
- 25 know nor would I.

- It is simply suggested by a footnote,
- 2 Mrs. Fleisher.
- 3 MS. FLEISHER: If you take that same
- 4 chart and look at the crowded EPZ, such as we have
- 5 in Rockland, you'll find that the hours are the
- 6 same. What I'm trying to suggest here and trying
- 7 to prove is that Mr. Schmer has an EPZ that has
- 8 ideal conditions with wide roads and very little
- 9 population and very little school population and,
- 10 yet, to unload the people out of the EPZ those
- 11 times though appear to be the same.
- I want to know why he didn't have any
- 13 input into that to correct it.
- JUDGE SHON: I don't believe he
- 15 calculated it to begin with.
- MS. FLEISHER: I'm saying he didn't
- 17 but he said he's made many changes in the book and
- 18 in the plan.
- MR. SCHMER: Not in -- the only way
- 20 I can answer that, Mrs. Fleisher, is we have
- 21 Parsons Brinkerhoff has experts in this area. The
- 22 county has experts in this area. They work
- 23 together on this things and those are the figures
- 24 they came up with.
- JUDGE GLEASON: In other words, your

- 1 own people validated.
- MR. SCHMER: Yes, sir.
- 3 JUDGE GLEASON: Your own experts
- 4 validated from Parsons Brinkerhoff came up with.
- 5 MR. SCHMER: Yes, sir. Our people
- 6 did go down to One Penn Plaza and spend some time
- 7 at Parsons Brinkerhoff going over these figures
- 8 with these figures.
- 9 JUDGE GLEASON: Then they tested the
- 10 road themselves.
- 11 MR. SCHMER: Yes, sir.
- JUDGE GLEASON: All right, Mrs.
- 13 Fleisher.
- 14 Q. Mr. Schmer, I believe you said that
- 15 you received \$70,000 above and beyond the amount
- 16 that the utilities are obliged by 708 to give to
- 17 you. Then you added that you also have received
- 18 goods and services that are not measured by money;
- 19 is that correct?
- 20 A. (Witness Schmer) No, ma'am, I did not
- 21 say that.
- 22 Q. What did you say?
- 23 A. (Witness Schmer) I said that we had
- 24 received about \$70,000 to buy us that hardware and
- 25 planning for our plan and in addition to this, the

- 1 utilities gave us equipment such as computers,
- 2 telephones, telex machines above and beyond that
- 3 which was required by 708.
- 4 Q. Is it your impression that 708
- 5 requires each utility to provide 250 thousand
- 6 dollars annually to a general fund by the state?
- 7 A. (Witness Schmer) Well, I understand
- 8 there is some formula in place. I'm not really
- 9 that familiar with it. I understand that's a
- 10 close ballpark figure. I concern myself primarily
- 11 with analyzing my county needs, determining what I
- 12 need to put my plan into place or to enhance my
- 13 plan, and these are the figures I'm primarily
- 14 concerned with.
- 15 Q. Mr. Schmer, why was it necessary for
- 16 you to have a subpoena to appear here today?
- 17 A. (Witness Schmer) I couldn't answer
- 18 that question. I have no idea.
- 19 Q. Had you been asked to come to testify
- 20 voluntarily?
- 21 A. (Witness Schmer) Other than that
- 22 subpoena, no.
- 23 O. Does the subpoena provide you with
- 24 any methods of recompence or selecting expenses to
- 25 arrive here today that you would not have

- 1 otherwise have had?
- 2 A. (Witness Schmer) No.
- 3 Q. Mr. Schmer, I want to ask you some
- 4 questions about the people in the park. Some part
- 5 of the parks are in your EPZ; are they not?
- 6 A. (Witness Schmer) Yes.
- 7 Q. Have you included them when you gave
- 8 us the population figure?
- 9 A. (Witness Schmer) Yes.
- 10 Q. What amount of people would you say
- 11 would be in a park on a Sunday in the summer?
- 12 A. (Witness Schmer) I couldn't bring
- 13 that figure to the floor at this time. We do have
- 14 some estimates on how many people would be in the
- 15 park on a given nice day in the summertime. I
- 16 just don't recall offhand what they are.
- 17 Q. Would it be your duties in anyway to
- 18 help to remove those people if an accident
- 19 occurred?
- 20 A. (Witness Schmer) We worked with them
- 21 very closely with the officials from the Park
- 22 Commission and with the Scate Police in that area,
- 23 yes.
- 24 Q. And who would provide the vehicles;
- 25 do you know?

- 1 A. (Witness Schmer). Yes. We have a
 2 transportation group in the county that would
 3 provide vehicles. That same transportation group
- 4 has offered to provide vehicles to Rockland County.
- 5 Q. How could it provide to both.
- 6 MR. PICKUS: Object to the form of
- 7 the question. Excuse me, Mr Schmer, object to the
- g form of the question. It assumes facts not in
- 9 evidence
- 10 Q. Are you aware, Mr. Schmer, that the
- 11 same group that gave your county a study is giving
- 12 Rockland County a study?
- 13 A. (Witness Schmer) No, I'm not. Are we
- 14 talking the same thing? We can have a group that
- 15 gave us a study. Is this the same group that is
- 16 providing the buses?
- 17 Q. Both, yes, or at least were able to
- 18 provide some buses.
- 19 A. (Witness Schmer) Well --
- 20 O. It's a group of amalgamated bus
- 21 drivers, as it were, bus companies as it were that
- 22 has offered to assist your county and others?
- 23 A. (Witness Schmer) I do know that we
- 24 have the buses committed to us that we would need
- 25 to put our, you know, plan into functioning.

1 (No page 12,184.)

(No page 12,185.)

- 1 Q. And you don't know how many buses?
- 2 A. (Witness Schmer) Well, I can tell you
- 3 offhand that we would need approximately 45 buses
- 4 to evacuate, if all the schools had to be
- 5 evacuated. We would need somewhat less if partial
- 6 3chools had to be evacuated.
- Q. I am talking about the parks.
- 8 A. (Witness Schmer) I couldn't say
- 9 offhand how many buses we would need.
- 10 Q. Mr. Schmer, do you have any posters
- 11 or signs in public buildings advising people what
- 12 to do if they --
- 13 A. (Witness Schmer) Yes.
- 14 Q. Do you have any signs in the phone
- 15 books?
- 16 A. (Witness Schmer) In phone books?
- 17 Q. I mean any pages of instruction in
- 18 the phone books.
- 19 A. (Witness Schmer) I don't believe so.
- 20 Q. Do you have any signs in the public
- 21 parks advising people what to do?
- 22 A. (Witness Schmer) Yes, we do.
- 23 Q. Where are they placed?
- 24 A. (Witness Schmer) I couldn't tell you
- 25 offhand but I have a listing in my office of

- 1 places that we put signs up throughout the 10 mile
- 2 EPZ.
- Q. Are those permanent type signs in the
- 4 parks?
- 5 A. (Witness Schmer) I don't think you
- 6 could consider them permanent in that they are
- 7 rather heavy duty paper, but I don't know if you
- 8 would consider those permanent, no.
- 9 Q. And do you have any institutions in
- 10 your EPZ for the deaf, dumb or blind?
- 11 A. (Witness Schmer) No, ma'am.
- MS. FLEISHER: That's all I have.
- 13 Mrs. Posner would like to ask some questions.
- 14 CROSS-EXAMINATION
- 15 BY MS. POSNER:
- 16 Q. Mr. Schmer, you mentioned that you
- 17 have been presented --
- JUDGE GLEASON: Do the both witnesses
- 19 know who you are?
- MS. POSNER: My name is Pat Posner. I
- 21 am asking questions for Parents Concerned About
- 22 Indian Point.
- 23 Q. You said that the slide program you
- 24 believe is worth or cost about \$35,000. Can you
- 25 tell me who prepared the slide program?

A. (Witness Schmer) I, myself, working 1 with -- I believe the name of the company is Dave 2 Duty from up around Oswego way someplace. 3 THE WITNESS: (Witness Scalpi) 4 Phoenix, New York. 5 6 THE WITNESS: (Witness Schmer) 7 Phoenix, New York, right. Q. I believe Mr. Scalpi was the one who 8 mentioned a computer in the emergency operation 9 center that tapped the meteorological data from 10 11 the plan. 12 Did you mention that, Mr. Scalpi? 13 Α. (Witness Scalpi) Yes. 14 Mr. Schmer, do you have a similar 0. 15 computer? 16 Α. (Witness Schmer) Yes, ma'am. 17 Is that computer able to read out 0. 18 radiological data from the site, radiological data? A. (Witness Scalpi) No, just 19 20 meteorological. A. (Witness Schmer) We have other on 21 site or in-county permanent meters that do this, 22 that are available to us 24 hours a day. 23

methods, is that what you are saying?

Q. Now, you have your own sampling

24

- A. (Witness Schmer) I am saying that the utility has put samplers completely around, in the four county areas. There are a number of these in Orange County whereby we can visit these any time
- of the day or night. They are in facilities that
- 6 are open 24 hours a day.
- In addition, we have our own guipment whereby we can do our own sampling.
- 9 Q. So Orange County has radiological
 10 sampling capability?
- 11 A. (Witness Schmer) Yes. However, we
 12 have to send this away for -- we can analyze it to
 13 a certain degree, but in most cases we would send
 14 this away to a lab to be analyzed.
- Q. Mr. Scalpi, did you receive any
 communications directly from Parents Concerned
 about Indian Point?
- 18 A. (Witness Scalpi) No.
- 19 Q. You have never received any
 20 communications directly from Parents Concerned
- 21 about Indian Point?
- 22 A. (Witness Scalpi) No.
- Q. Can I refresh your memory and remind
 you of a letter that was sent to you in the middle
 part of February requesting to be observers in the

- 1 Putnam County EOC.
- 2 A. (Witness Scalpi) I stand corrected,
- 3 madam.
- 4 Q. So you did receive a letter?
- 5 A. (Witness Scalpi) I received a letter
- from you asking to put two people in the EOC and
- 7 you said you had a Mr. Glass' permission to go
- 8 ahead and do this. I, as a civil defense director
- 9 in my county, thought first that who are you to
- 10 come in and evaluate me. That's what I thought at
- 11 first.
- 12 Then, second, there is no room in my
- 13 EOC for anybody except the people that are on the
- 14 staffing pattern.
- 15 Q. So the letter that I sent you
- 16 requesting permission for at least one, and not
- 17 more than two observers in the Putnam County EOC,
- 18 is that correct?
- 19 A. (Witness Scalpi) I don't want to say
- 20 the letter is correct because I think you asked
- 21 for two people and then you wanted some runners,
- 22 to bring runners in there to run out to different
- 23 places.
- Q. Well, since I don't have a copy of
- 25 the letter with me, I will have to accept your

- 1 characterization. As I recall, it was a request
- 2 for at least one and not more than two people.
- 3 And did you give a reply to Parents
- 4 Concerned about Indian Point in writing, Mr.
- 5 Scalpi
- 6 MR. PIKUS: I object to the first part
- 7 of that question. It was testimony. I don't
- 8 object to the latter part of the question.
- JUDGE GLEASON: What was testimony?
- MR. PIKUS: She characterized her
- 11 interpretation of the letter.
- JUDGE GLEASON: She didn't say that.
- 13 She said that she didn't doubt his
- 14 characterization of the letter.
- MR. PIKUS: It is not that important,
- 16 Judge. I am not going to fight over it.
- 17 Q. Did you respond in writing to this
- 18 letter, Mr. Scalpi?
- 19 A. No, ma'am. I considered it kind of a
- 20 crank letter. I never met you. I don't know who
- 21 you are, and you write me a letter telling me you
- 22 are going to put two people in there, I don't know
- 23 who they are.
- I considered this a crank letter
- 25 because usually when people want to deal with me

- 1 they deal with me on a personal basis and come in
- 2 my EOC and talk to me.
- Q. When I called to ask for your
- 4 response to the letter, what did you tell me?
- 5 A. (Witness Scalpi) I don't remember. I
- 6 was very busy at that time.
- 7 MS. POSNER: That's all, thank you.
- 8 MR. GLASS: I want to clarify one
- 9 thing about the letter that had been indicated.
- 10 The permission that was being talked about, FEMA
- 11 that did not grant permission. FEMA agreed,
- 12 according to its stipulation, they agreed they
- 13 would have no objection to placement of people in
- 14 the EOCs.
- We also indicated we had no authority
- 16 to authorize people. That was the original form
- 17 of the stipulation.
- JUDGE PARIS: Mr. Schmer and Mr.
- 19 Scalpi, I am trying to reconcile some of the
- 20 population figures that you have given, Mr. Schmer,
- 21 with some population figures that tre contained in
- 22 the Putnam County Radiological Emergency
- 23 Preparedness Plan, Part 2, dated January 1983,
- 24 which was put into evidence by the State of New
- 25 York.

1	Now, I realize that population
2	numbers are based on sources, but I would like to
3	try to explore to determine which figures are more
4	occurate, the ones you gave us, Mr. Schmer, or the
5	ones in this document?
6	MR. PIVUS: Judge, I hate to interrupt.
7	With all due r spect, Mr. Schmer represents Orange
3	County.
9	JUDGE PARIS: I am aware of that.
10	The Putnam County Radiological
1.1	Emergency Preparedness Plan, Part 2, page CD-23
1 2	has 1980 population estimates, totals by county
13	and it has figures for Orange County, Putnam,
14	Rockland and Westchester Counties.
15	The Orange County figure given here
1 €	is 18,539, and I think you said 23,000.
1 7	Is your figure more up-to-date? This
18	was based on 1980 population figures for Orange
19	County from the Orange County Planning Department,
2.0	population estimate and projections, March 1980.
21	You said 23,000 and this says 18,000.
2 2	THE WITNESS: (Witness Schmer) I
2 3	believe it is higher than 18,000, your Honor. I
2 4	would like to check that out with my planning

25

department and the data book that I have in my

- office. I believe it is somewhat higher, a little
- 2 higher than 18,000.
- JUDGE PARIS: You think 23,000 is more
- 4 accurate?
- 5 THE WITNESS: (Witness Schmer) I
- 6 believe so.
- JUDGE PARIS: For Putnam County you
- 8 said 19,000?
- 9 THE WITNESS: (Witness Scalpi) 19,000,
- 10 yes.
- JUDGE PARIS: This says 19,912, so you
- 12 were rounding off.
- 13 The figures begin for Rockland are
- 14 92,993 and for Westchester County 125,000.
- I would like to ask you about West
- 16 Point. You said there were 12,000 people that
- 17 would be evacuated from the West Point area, is
- 18 that right?
- 19 THE WITNESS: (Witness Schmer) It
- 20 depends on the scenario. Portions of West Point,
- 21 if we went into an alert status, the way the
- 22 scenario is being developed now, workers at West
- 23 Point and school children would be released to go
- 24 home.
- These people would fall into the

- figures in Orange County and would become part of
 our responsibility.
- 3 We have, I believe, 4000 cadets at
- 4 West Point and 4000 other government employees --
- 5 other people, such as families and this type of
- 6 thing.
- 7 I believe the way they envision it
- 8 right at this moment is that the cadets, if an
- 9 evacuation would have to be put into place, would
- 10 be taken up to Stewart and put into housing at the
- 11 Stewart Air Base, Stewart Airfield. In that area
- 12 there are some Army facilities over there.
- 13 Again, I indicate that West Point has
- 14 taken kind of an about face and is changing their
- 15 planning process over this past year, and I don't
- 16 believe they have completed it yet.
- JUDGE PARIS: I was trying to
- 18 reconcile your figures with the figures given in
- 19 this for the evacuation planning area that
- 20 includes the West Point Military Academy. But
- 21 obviously the situation is complex there and I am
- 22 not going to be able to do that.
- 23 THE WITNESS: (Witness Schmer) Right,
- 24 sir. In that most of the people at West Point are
- 25 not considered or do not live in that immediate

- 1 area.
- JUDGE PARIS: All right. Let me ask
- 3 you, Mr. Schmer, one other question. Are there
- 4 reception and primary care centers in Albany, New
- 5 York? You said if the boat picked up people and
- 6 had to go north, they would end up in Albany and
- 7 they would be taken care of there.
- 8 THE WITNESS: (Witness Schmer) Yes,
- 9 sir. Well, let me elaborate on that. As I
- 10 pointed out before, every time we run an exercise,
- 11 every time you review your plan, you usually come
- 12 up with something new and you have to address that.
- 13 This was one of the things that we
- 14 came up with about two months ago and we made
- 15 Albany, the people up in Albany aware of this
- 16 particular scenario and they are working on
- 17 reception and congregate care centers in the event
- 18 this particular situation did develop.
- JUDGE PARIS: They are in the works;
- 20 you don't know whether they are set up?
- 21 THE WITNESS: (Witness Schmer) Yes,
- 22 sir. I don't believe it has been finalized, but I
- 23 do know for a fact they are aware of this and are
- 24 working on it.
- JUDGE PARIS: All right. You

- 1 testified that your evacuation time estimates took
- 2 into account snowstorms and other adverse weather
- 3 conditions. I would like to ask both of you this
- question: You know what I mean when I refer to the
- 5 blizzard of 1983?
- 6 THE WITNESS: (Witness Schmer) Yes,
- 7 sir.
- JUDGE PARIS: Immediately after the
- 9 snowfall and during the blizzard of 1983 were
- 10 there abandoned cars on roadways in your counties?
- THE WITNESS: (Witness Schmer) Yes,
- 12 sir, there was. What we did in Orange County, we
- 13 made arrangements for a number of facilities to be
- 14 opened up. My EOC was one of them. I have two
- 15 dormitories, a women's dorm and a men's dorm that
- 16 can sleep about 40 people in each.
- 17 The Middletown Psychiatric Center
- 18 opened up and I believe one other facility.
- 19 We opened up my EOC at about 11:30
- 20 that evening. We kept open all night. Local
- 21 police people working with the sheriff's
- 22 department and did run the roads. In fact, I ran
- 23 the roads with them for a little while and we did
- 24 pick up some people and take them to either one of
- 25 these facilities and put them up for the night.

- JUDGE PARIS: You took care of the 1 2 people who left the abandoned cars. 3 THE WITNESS: (Witness Schmer) Yes, 4 sir. 5 JUDGE PARIS: I am interested in the abandoned cars. When were the abandoned cars cleared from the roadways? THE WITNESS: (Witness Schmer) I ran 8 9 the road the next morning, rather early, I would 16 say about 9 o'clock, and in most cases they were 11 gone. 12 JUDGE PARIS: By 9 o'clock the next 13 morning? 14 THE WITNESS: (Witness Schmer) In most cases they were gone, your Honor, by 9 15 15 o'clock the next morning. 17 JUDGE PARIS: How about in your 18 company? 19 THE WITNESS: (Witness Scalpi) The 20 only place we had abandoned cars was on the main 21 high highways, like Route 84. I noticed there 22 were a couple of cars on Route 9 when we made the run. All these cars were gone by 8 o'clock in the 23
- JUDGE PARIS: Thank you.

morning.

- MS. POSNER: Excuse me, one question
- 2 that I should have asked and I didn't.
- JUDGE GLEASON: Go ahead.
- 4 CONTINUED CROSS-EXAMINATION
- 5 BY MS. POSNER:
- 6 Q. Was your final response to Parents
- 7 Concerned about Indian Point a rejection of our
- 8 point to have an observer at the Putnam County EOC?
- 9 A. (Witness Scalpi) I didn't respond,
- 10 did I?
- 11 Q. Well, I called you up and asked you
- 12 if we could, what your response was. Was your
- 13 response to me at that time no?
- 14 A. (Witness Scalpi) Don't you remember
- 15 what it was?
- 16 Q. For the record, please.
- 17 A. (Witness Scalpi) I probably told you
- 18 no.
- 19 Q. Was there in fact an observer from
- 20 the intervenors at the Putnam County EOC on March
- 21 9?
- 22 A. (Witness Scalpi) No, ma'am.
- MS. FLEISHER: Escuse me.
- Judge Paris mentioned the population
- 25 figures and mentioned the 92,000 from Rockland.

- Mr. Davidoff appeared before us on March 23 and I have before me the reference when Exhibit 10 was 2 introduced. It is on transcript number 11310. 3 We talked about it at that time, and 4 5 he mentioned that this was the plan for Rockland 6 County, which was the newer plan or the newest plan, and that he had changed the population in the plan to the amount that Rockland County has put in it. 10 I think it is time, for the record, that we, if you don't mind, changed the 92,000 11 figure to what has now been corrected by that and 12 13 by Mr. O'Lear's testimony of last July, to 108,000 as the proper population for Rockland 14 15 County.
- JUDGE PARIS: They testified 208,000?

 MS. FLEISHER: 108 thousand. We are

 talking about within the EPZ. Only within the EPZ.

 Mr. O'Lear testified 109.
- For some reason or other Mr. Davidoff
 and Mr. McGuire and Mr. Smith put it in at 108,
 but it is a lot closer to the correct one than 92
 nine is.
- JUDGE PARIS: Thank you for reminding me.

MR. PIKUS: The record speaks for 2 itself. THE WITNESS: (Witness Schmer) For 3 some reason I am having some problem taking all these figures out of my mind, your Honor. I believe the figure I have been alluding to is perhaps -- I may be including transients that could be in the park on a summer day. I may be 8 including these. 9 But for some reason or other a total 10 figure that comes to mind is 23 some odd thousand. 11 12 JUDGE GLEASON: All right. Did you want to say anything because 13 I am going to excuse you? 14 MR. PIKUS: I also have some very 15 16 brief redirect. JUDGE GLEASON: There is no redirect 17 on this. What do you mean redirect? 18 MR. PIKUS: I directed the examination, 19 Judge. I presumed that I was entitled to redirect. 20 21 I have three questions. 22 JUDGE GLEASON: You were cross 2.3 examining in this area. Did you want to say something? 24 THE WITNESS: (Witness Scalpi) Yes, I 25

- 1 do. I would like to clear something up that Mrs.
- 2 Posner said about --
- JUDGE GLEASON: Let your lawyer do
- 4 whatever redirect he has to do and I hope he makes
- 5 it brief, because this examination has gone way
- 6 beyond the pale which we allow, in my view.
- 7 MR. PIKUS: It will be brief.
- 8 REDIRECT EXAMINATION
- 9 BY MR. PIKUS:
- 10 Q. Mr. Schmer, I believe Ms. Fleisher
- 11 showed you a large document entitled "The Rockland
- 12 County Emergency Radiological Response Plan," is
- 13 that correct? The booklet with the three rings.
- 14 A. (Witness Schmer) She showed me a plan.
- 15 I believe it was Orange County's, though.
- 16 Q. Is that the latest version of the
- 17 plan, to your knowledge?
- 18 A. (Witness Schmer) With reference to
- 19 those tables, I believe it is, yes. Not the
- 20 entire plan.
- 21 Q. You were asked a question about
- 22 communications between Rockland County and Orange
- 23 County. Do you know whether there is a direct
- 24 communications capability between the two county
- 25 EOCs?

1	A. (Wi	tness	Schmer)	Yes, the	ere is.
2	MS.	FLEIS	HER: I d	idn't as	sk about the
3	EOC, Mr. Pikus.				
4	JUE	GE GLE	ASON: MS	. Fleish	ner, if you
5	want to make an	object	ion to t	he quest	ion, make
6	the objection, b	ut we	don't wa	nt testi	mony from
7	representatives	here.			
8	MS.	FLEIS	HER: I O	bject.	He is
9	characterizing w	hat I	said. I	didn't	ask if the
10	EOCs				
1 1	JUC	GE GLE	ASON: Sh	e has ma	ide her
1 2	objection. What	is yo	ur respo	nse to t	hat?
1 3	MR.	PIKUS	: He was	asked a	question
1 4	about communicat	ions b	etween t	he two o	counties, and
15	then I went on t	o ask	whether	that com	nmunication
16	can be facilitat	ed via	the EOC	s.	
17	JUE	GE GLE	ASON: Ob	jection	denied.
18	Res	pond to	o the qu	estion.	
19	MS.	FLEISI	HER: He	just cha	aracterized
20	his question inc	orrect	ly again	. The q	uestion was
21	not what he said	. The	questio	n was ca	n the police
22	departments cont	act ea	ch other	. We di	d the not
2 3	ask if the count	ies car	n contac	t each o	ther.
2.4	JUE	GE GLE	ASON: He	is aski	ing a new

question.

1	Ask the question again.
2	Q. My question is simply this, Mr.
3	Schmer: You were asked a question about
4	communications between the two counties. Can the
5	Rockland County and the EOC and the Orange County
6	EOC access each other for direct communication?
7	A. (Witness Schmer) You have a number of
8	communication systems in place between counties.
9	You have the executive hot line. In addition you
10	have NAWAS which is in the EOCs and in the warning
11	points, which in my most cases are in the sheriff's
12	departments or local police departments.
13	This sets up a very advanced type
14	communication system between all counties in the
15	state, all counties and cities in the country, as
16	a matter of fact.
17	Q. You were asked a question by Ms.
18	Posner about the computer terminals that the
19	licensees provided you. Would this be the system
20	known as Midas, M I D A S?
21	A. (Witness Schmer) I believe it is, yes.
22	Q. And do you know whether this system
23	is capable of giving you radiological data as well
24	as meteorological data?

A. (Witness Schmer) The system is

1	capable of doing this. I understand they are	
2	undergoing some changes in the system right now	
3	that are not completed, but I believe we will hav	е
4	this capability.	
5	MR. PIKUS: I have no further	
6	questions	
7	JUDGE GLEASON: Gentlemen, you are	
8	excused. Thank you for your testimony.	
9	MR. PIKUS: On behalf of the Power	
10	Authority, gentlemen, thank you very much.	
11	JUDGE GLEASON: I gather that those	
12	are all the witnesses we have available for today	٠
1 3	We will start with the staff's witnesses at 9 a.m	
14	in the morning.	
15	There is a stipulation here today	
16	which has been submitted by Ms. Fleisher regardin	g
17	the testimony of Intervenor's witness, Frank	
18	Fischer, stipulation signed by Ms. Potterfield,	
19	Mr. Pikus, Mr. Brandenburg and Mr. Hassell.	
20	The board will approve having that	
21	stipulation printed in the record. I request that	C
22	it be inserted in the record.	
23	(The document follows:)	

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Administrative Judges:

James Gleason, Chairman Dr. Oscar H. Paris Frederick J. Shon

In the Matter of

CONSOLIDATED EDISON COMPANY OF NEW YORK (Indian Point, Unit 2)

Docket Nos. 50-247-SP 50-236-SP

POWER AUTHORITY OF THE STATE OF NEW YORK (Indian Point, Unit 3)

March 30, 1983

STIPULATION TO TESTIMONY OF INTERVENOR'S WITNESS FRANK FISCHER

The undersigned attorneys for Intervenors, the NRC Staff, Consolidated Edison Co. and the Power Authority of the State of N.Y. hereby stipulate that, if called to testify, Frank Fischer would testify to the facts as set forth in his pre-filed testimony annexed hereto along with his certification of adoption.

amarak BHerfuld

Amanda Potterfield , Esq. for the Intervenors

DONAND HASSELL, Esq.

For the NRC Staff

David Pilos, Esq.

Brent Brandenburg, Esq. for Consolidated Edison Co.

for WEST BRANCH CONSERVATION ASSOCIATION, INC.

443 Buena Vista Road New City, N.Y. 10956 914/634-2327 Supporal S. Fleisher

by Zipporah S. Fleisher

y Zipporah S. Fleisher Secretary I hereby certify that I, FRANK E. FISCHER, Vice

President - Engineering and Production, of Orange and Rockland

Utilities, Inc. adopt the annexed (i) letter dated July 19,

1983, signed by Victor A. Roque, Senior Attorney, consisting

of three pages of five questions and answers and (ii) a two
page resume of Frank E. Fischer as my testimony.

Frank E. Fischer

STATE OF NEW YORK)
) ss.:
COUNTY OF ROCKLAND)

On the 29th day of March in the year 1983 before me personally came Frank E. Fischer, to me known, who, being first duly sworn, states that he is the Vice President of Orange and Rockland Utilities, Inc.; that he has read the foregoing said documents and knows the contents thereof; and that all of the statements contained therein are true and correct to the best of his knowledge and belief.

Sworn to and subscribed before me, a Notary Public, this 29th day of March, 1983.

ARLENE ROTUNDO

NOTARY PUBLIC, Star of New York
No. 477J214

Qualified in Fourier County
Commission Expires M. Co. 30, 1,84

DIRECT TESTIMONY

OF

FRANK E. FISCHER

- 1 Q. Please state your name and business address.
- A. My name is Frank Fischer and my business address is One Blue

 Hill Plaza, Pearl River, New York 10965.
 - Q. By whom and in what capacity are you employed?
 - A. I am employed by Orange and Rockland Utilities, Inc. as Vice

 President of Engineering and Production.
 - Q. Please provide a brief outline of your business and educational experience, including professional society affiliations.
 - A. I attended Manhattan College from 1951 to 1955 and graduated with a degree of Bachelor of Electrical Engineering. From 1955 to 1957 I was with the United States Air Force, and from 1958 to 1973 I held various management positions with the Consolidated Edison Company of New York. In 1973, I became Chief Electrical Engineer, a position which I held until 1978 at which time I joined Orange and Rockland Utilities as Vice President for Engineering and Power Development. In 1979, I became Vice President for Engineering and Production. I am a member of the Board of Directors of the Empire State Electric Energy Research Corporation, Chairman of the Planning Committee and alternate member of the Operating Committee of the New York Power Pool. I am a member of the Edison Electric Institute Executive Advisory Committee on Fossil and Synthetic Fuels and a member of the Northeast Power Coordinating Council System Design Coordinating Committee. I have been a member of the Edison Electric Institute, Electrical Systems and Equipment Committee and Chairman

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to 1978. I have been a member of the Electric Systems Advisory
Committee of the Electric Power Research Institute, a member of
the Association of Edison Illuminating Companies (AEIC)
Committee on Electric Power Apparatus, the United States representative to the CIGRE Working Group of Metal Clad Substations
and also the Advisor to the United States Representative of
CIGRE on Study Committee 14 on A.C. and D.C. Conversion Equipment.
I have been a member of the Switchgear Committee and the Power
Circuit Breaker Committee of the Institute of Electrical and
Electronic Engineers from 1964 to 1972. I am also a licensed
professional engineer in the states of New York and New Jersey.

-2-

ORANGE AND ROCKLAND UTILITIES, INC.

one blue hill plaza, pearl river, new york, 10965 914-352-6000

writer's direct alainumber 914-627-2424

July 19, 1982

BY HAND

Mrs. Z. S. Fleischer West Branch Conservation Association 443 Buena Vista Road New City, New York 10956

Dear Mrs. Fleischer:

The following are the responses to the questions which you directed to Stephen L. Baum in your letter of May 26, 1982.

Question 1. Does each plant require people to operate it of can one or both operate for a period of time without personnel? Please advise the time limits.

Answer Each plant requires operators whenever it is in service. The plants cannot be operated without any personnel present.

Question 2. If an emergency took place and an operator at one or both plants felt the need to leave to evacuate his family could he call in a replacement? Is there an arrangement for emergency personnel to report to the plants upon hearing the sirens? What other ways do you have to communicate with outside personnel not on the premises? How long would it take to be sure that the plants have a proper complement capable of running the plants?

Answer

Sufficient operators are assigned to each plant at all times to assure their safe and reliable operation. Operators must remain on duty until properly relieved, either by another operator or by a supervisor in an emergency. If additional personnel are required because of the unavailability of personnel on duty,

Answer

they are called in by the supervisors by telephone. A sufficient number of personnel are scheduled for duty at all times to insure that the proper complement capable of running the plant is always available.

Question 3. What assurance, letters of agreement or contracts do you have from employees that they will either stay on the job or report for work? Please supply sample copy of such agreement.

Employees under the Collective Bargaining Agreement agree to report to work and to remain on the job until properly relieved.

Question 4. If either or both plants were to shut down for any reason during such an emergency what automatic substitute would come on the line? How many MW would be supplied from the Pool and for how long?

Answer

If it were necessary to evacuate all personnel from either or both plants they would be shut down prior to the evacuation of personnel. High voltage transmission interconnections to the New York Power Pool would be capable of supplying the power requirements of the Orange and Rockland system during this period. The cost of operation would be significantly higher than it would be if the energy were provided from our own plants but the electric system would be capable of continuing operation in this mode.

Question 5. Is there any radiation monitoring equipment available to personnel at either plant in the event of an accident at Indian Point?

Mrs. Z. S. Fleischer Page 3 July 19, 1982

Is there any protective clothing for those who choose to remain at their jobs? Is there any dosimeter for each employee or radiation badge?

There are no radiation monitoring or protective equipment at either plant for the use of personnel during an emergency. Instructions on the evacuation of these plants will be received from the Civil authorities in accordance with the Emergency Plan in effect at the time. When ordered to do so by the competent authorities, the personnel of the plant will be evacuated.

As Mr. Frank E. Fischer discussed with you in a previous telephone conversation, he is prepared to support these responses at the NRC hearings, if so requested by you.

Very truly yours,

Victor A. Roque Senior Attorney

VAR/amr

cc: F. E. Fischer

1		J	JDGE	GL	EAS	ON:	Ther	e was	s a motion	
2	that was s	ıbmi	tted	l to	day	, I	beli	eve b	y the	
3	Intervenor	s, fo	or t	he	pro	duct	ion	of do	cuments	
4	generated	lurí	ng t	he	Mar	ch 1	983	planr	ning exerc	ise
5	and if we	nave	son	ne t	ime	we	will	get	that moti	on
6	argued.									
7		Н	as e	ver	yon	e re	ceiv	ed co	pies of i	t
8	and is eve	yon	e pr	epa	red	to	disc	uss	t?	
9		M 1	R. F	PIKU	S:	Judg	e, I	have	en't had a	
10	chance to	ead	thi	s d	ocu	ment	yet			
11		JI	JDGE	GL	EAS	ON:	Let'	s tak	e a ten-	
12	minute reces	SS,	read	it	, a	nđ t	hen	we wi	ill come b	ack
13		('	Ther	e w	as	a sh	ort	reces	SS.)	
1 4		J	JDGE	GL	EAS	ON:	All	right	, if we m	ау
15	proceed, p	leas	e .							
16		D	id y	70 u	an	t to	mak	e any	other	
17	comment in	add	itic	n t	о у	our	moti	on?		
18		M	S. F	POTT	ERF	IELD	: No	, Juc	ige Gleaso	n,
19	we will re	st o	n oı	ırm	oti	on.				
20		J	JDGE	GL	EAS	ON:	Who	would	like to	
21	respond fi	st?	MI	. н	lass	el1?				
22		М	R . F	HASS	ELL	: Ye	S.	му с	omments ar	e
23	fairly bri	ef.								
24		J	JDGE	PA	RIS	: Mr	. на	ssell	, would y	ou
25	get your m	ke	over	th	ere	, pl	ease			

MR. HASSELL: My comments are fairly 1 2 brief is what I began by saying. Leaving aside the question of this motion's compliance with 10 3 CO 4, section 2.744, which calls for a special 4 procedure for having staff to produce documents; 5 leaving that aside, it is my understanding that 6 with respect to the NRC staff, that the staff has 7 produced an inspection report, the number of which 8 is 50-247/83-09, which concerns the NRC staff's evaluation of the licensee's performance during 10 the March 1983 exercise. 11 It is my understanding that that 12 report is currently being reviewed to determine 13 14 whether any information is proprietary in nature. 15 We have requested that the region shorten that

report is currently being reviewed to determine whether any information is proprietary in nature. We have requested that the region shorten that review, which normally takes ten days. They have agreed to try and have that review completed within five days, after which I would immediately file that report with the board and all the parties, the persons on the service list.

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As to the question of the draft material, I guess it is my view there is really no need for that by now, given that the report is completed.

In any event, there is still a

- 1 question about the draft material, that would also
- 2 have to be subjected to this review for
- 3 proprietary information, which is called for by
- 4 NRC regulations.
- 5 Beyond that I have no further
- 6 response.
- 7 MR. GLASS: I have a number of issues
- 8 to address on this.
- 9 First of all, reading the original
- 10 commission order of August 20, 1982, it is not
- 11 clear that they are looking for background
- 12 information or rough notes or individual
- 13 exsecret forms. They are talking about extensive
- 14 documentation. They could be referring in this
- 15 case to the final product or the finished report.
- 16 One of the reasons that leads me to
- 17 believe that that was their intent is when you
- 18 read the attached statements of Commissioners
- 19 Roberts and Ahearne, they raise very serious
- 20 concerns as to the chilling effect of releasing
- 21 individual exsecret forms completed by individual
- 22 team members.
- We, unfortunately, have had some
- 24 experience with this chilling effect in the past
- 25 with problems of reactions by individuals finding

- out that a particular observer made certain
- 2 comments about the performance of these
- 3 individuals.
- 4 The FEMA observers and other federal
- 5 observers carry out their duty in the highest
- 6 regard and sometimes have to put comments that are
- 7 quite critical as to the activity carried on by
- 8 the people they are observing. There are many
- 9 cases when they in their other duties have to
- 10 interact with these people and it does cause
- 11 problems.
- 12 So that addresses two portions right
- 13 there.
- We originally had no problem with the
- 15 intervenor's original request f filing their
- 16 supplemental testimony three days after our post
- 17 exercise assessment came out, and we would feel
- 18 that that would provide them the information that
- 19 is necessary without having to worry about the
- 20 chilling effect and the possible problems with
- 21 disclosure of individual exsecret reports.
- 22 I think that Commissioner Roberts
- 23 probably speaks more eloquently to that particular
- 24 problem than I can.
- As to the item B, which deals with

- 1 the logs of phone calls made to reception centers,
- we are working on a report with that information.
- 3 We would have no problem. This is all factual
- 4 information, and we would have no problem
- 5 releasing that background information.
- I will have to get back to the board
- 7 as to the exact date that we would make it
- 8 available. Our people are utilizing it right now
- 9 and are working on the final report dealing with
- 10 that part of our verification process.
- We do have another concern. We would
- 12 like to be the ones bringing out the report. We
- 13 find it a little disconcerting that things we have
- 14 produced at these hearings end up in the
- 15 newspapers in a different format, being released
- 16 by other parties. So we would like to be able to
- 17 coordinate that aspect.
- Our mein concern I think has been
- 19 expressed, which has to do with the chilling
- 20 effect and with the impact on our work in progress
- 21 right now.
- JUDGE GLEASON: Go ahead, Mr. Hassell.
- 23 MR. HASSELL: One other item. That
- 24 is, should the board require disclosure drafts,
- 25 the staff reserves its right to claim privilege

- with respect to any of that material. JUDGE GLEASON: I understand. 2 MR. PIKUS: May the Power Authority be 3 heard on this motion? JUDGE GLEASON: Yes, go ahead. 5 6 MR. PIKUS: Your Honors, the Power Authority supports FEMA's motion or FEMA's position in response to the motion, number one, 8 for the reasons stated by the FEMA representative, 9 10 and number two, because the request appears to be 11 insufficiently specific. 12 While the request does not specifically and directly apply to the licensees, 13 because we do have a regulatory relationship with 14 both, nRC and FEMA, we could potentially suffer an 15 adverse impact as a result of the production of 16 17 the documents. We have a second concern. I question 18 Mr. Glass as to whether the materials --19 JUDGE GLEASON: I am not sure I 20 understood that last point. It could have an 21 22 adverse impact?
- MR. PIKUS: They have not asked, Judge
 Gleason, for documents in the hands of the Power
 Authority. They have asked for documents

- 1 concerning an exercise which relates to the Power
- 2 Authority's facility. And if there is any
- interference with FEMA's evaluation process, that
- 4 could have some unintended impact adversely on our
- 5 operating license, or at least on the regulatory
- 6 relationship between those two federal agencies
- 7 and our clienc.
- 8 The other concern that I have, I
- 9 raise the question with Mr. Glass as to whether
- 10 this document request could encompass documents
- 11 that were sent by the licensees confidentially to
- 12 FEMA, and he indicated to me that he did not know
- 13 but that it was a possibility. So that would be a
- 14 second reason why the Power Authority would
- 15 support the FEMA position on the motion.
- JUDGE GLEASON: Mr. Brandenburg.
- 17 MR. BRANDENBURG: If Mr. Glass is
- 18 concerned about the chilling effect, Mr. Chairman,
- 19 I think Con Edison must be similarly concerned
- 20 because the effectiveness of FEMA's ability to
- 21 discharge its audit responsibilities for this
- 22 exercise has the impact upon our licensing status,
- 23 for the reasons mentioned by Mr. Pikus.
- I might add that to the extent the
- 25 motion reaches the New York State Radiological

- Preparedness Group, that Mr. Feinberg is not with us today.
- JUDGE GLEASON: I think the board is
- aware of that, Mr. Brandenburg.
- 5 MR. BRANDENBURG: I have nothing else.
- 6 MS. POTTERFIELD: Judge Gleason, I
- 7 wasn't exactly clear about Mr. Glass' indication
- 8 that he would have less of a problem if our
- 9 testimony on the drill was not going to be due
- 10 until April 18 instead of April 11, as the
- ll licensees are insisting. I don't quite know how
- 12 to respond to that, except to say that we are
- 13 caught in a dilemma here, since we have the
- 14 licensees opposing us on one hand and, as I
- 15 understand it, Mr. Glass wouldn't have such a
- 16 strong opposition if the licensees would permit us
- 17 to file our drill testimony later than they are
- 18 now insisting on. I just mean to say we are in a
- 19 little bid of a bind.
- JUDGE GLEASON: Would you like him to
- 21 clarify it?
- MS. POTTERFIELD: Yes, your Honor.
- MR. GLASS: My interpretation of the
- 24 original commission order says that there is a lot
- of information available generated by FEMA and

finished. 1 2 MS. POTTERFIELD: The licensees insist we file our drill testimony on the 11th, which is 3 well before FEMA's report is due, we have, of 4 course, this great need for the information. 5 5 JUDGE GLEASON: That is something different than what you are saying, Mr. Glass. MR. GLASS: We agree. The solution 9 that I then propose is that, A, if the Intervenors 10 would only be requesting the post exercise assessment and that the licensees withdraw their 11 objection to their filing the supplemental 12 13 testimony three dams after the --14 JUDGE GLEASON: The preliminary question is whether the filing of the testimony by 15 the Intervenors subsequent to the evaluation by 16 FEMA will be adequate in the place of the 17 information being requested here by the 18 19 Intervenors. 20 Only Ms. Potterfield can answer that. MS. POTTERFIELD: We are asking for 21 the drafts reports anyway. I really mean to say 22 we are not really asking for the draft reports. I 23

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understand from my conversations with Mr. Glass we

are asking for the reports that are the summary of

the draft reports. I forget what we call them. Anyway, we are asking for more than 2 the post exercise assessment in any event. 3 Because our testimony is due so early we have this additional added need for all of it. 5 JUDGE GLEASON: Let's not argue what 7 you need. I want to argue what you want. MR. GLASS: I am a little confused. 2 Are you saying you want now the individual 9 10 exsecrets or do you want the team leader exsecrets? 11 MS. POTTERFIELD: As I understand it from our conversation, what we want are both, the 12 13 individual and team leader exsecrets, if I 14 understand what they are from our conversation. 15 MR. GLASS: To clarify for the record, 16 an exsecret form is a form that contains a series 17 of ten areas with subareas dealing with specific 18 areas -- specific subject areas that have to be 19 observed or are intended to be observed by the 20 individual observer, for want of a better word. 21 Not every observer observes every 22 single section on that exsecret form, but the 23 individual does report his own personal observations, and divulging that causes a very 24

serious problem.

- A, the individual has only seen one
- 2 aspect. He may be somebody in the field who may
- 3 be making notes about receiving certain
- 4 documentation or seeing a particular response and
- 5 not having the full information of what went on
- from the EOC where that information may have been
- 7 dispatched from. That's why it may be misleading
- 8 in that regard, number one.
- 9 Number two, again I am very concerned
- 10 about the chilling effect. We have had some
- 11 rather negative responses. I think even listening
- 12 to two witnesses today, there are very strong
- 13 opinions that individuals who have the
- 14 responsibility for carrying out these duties hold,
- 15 and when FEMA criticize is them, their reaction is
- 16 very strong, to put it mildly.
- NS. POTTERFIELD: We have offered in
- 18 the course of our negotiations, Judge Gleason, we
- 19 have indicated that we are quite willing for them
- 20 to black out any names or any other identifying --
- 21 anything that would identify individuals working
- 22 for FEMA.
- 23 MR. GLASS: It is known basically
- 24 which individual was at which location, and
- 25 blocking out the names and still having the

- individual exsecrets may solve the problem in one or two of the situations where we have a number of 2 people, such as observing traffic control points. 3 But in other areas, such as the EOC, 4 it will still cause serious problems. JUDGE GLEASON: What is the summary? MR. GLASS: What ends up happening is we have the team leader teams meet together and 8 sit down and then evaluate the individual 9 exsecrets, using that as a back-up, and then 10 discuss, for example, somebody may say that I 11 observed the buses and they didn't show up in a 12 timely manner. The individual who is there when 13 it was dispatched would say that they didn't 14 receive the dispatching word until this particular 15 time because the scenario did not unfold in the 16 manner we originally expected. 17 The scenario is the general outline 18 of times it is going to unfold, but it is 19 contingent on the actions of the players. We may 20 expect the buses may will roll at 11 o'clock but 21 they may run at 10:30 or 12:30 because it is up to 22
- 23 the players to determine when those actions are
- 24 taken.
- So they get together and get all that

- 1 information together so you get a much clearer
- 2 report.
- JUDGE GLEASON: What you are saying is
- 4 a summary is a more accurate document?
- 5 MR. GLASS: Yes, probably in a way
- 6 that you would not be able to identify any one
- 7 individual.
- JUDGE SHON: That's a team exsecret?
- 9 MR. GLASS: Team exsecret form.
- JUDGE SHON: Would the team exsecrets,
- 11 the summaries, do for your purposes?
- 12 MS. POTTERFIELD: We have asked for
- 13 all of them but if there is a way of getting the
- 14 team leader exsecrets, we are quite willing to
- 15 negotiate that.
- 16 JUDGE GLEASON: Mr. Brandenburg, you
- 17 wanted to say something?
- MR. BRANDENBURG: It was tangentially
- 19 testified as to the time we would be receiving the
- 20 Intervenor's post exercise testimony, and I am
- 21 happy to report to the board after our colloquy on
- 22 the record last Friday the licensees have reached
- 23 agreement with the intervenors that we will be in
- 24 receipt of their post exercise testimony on the
- 25 lith of April and that will be sufficient for our

- 1 purposes in order to prepare for cross-examination
- 2 on the 26th.
- JUDGE GLEASON: That takes care of
- 4 that end of it.
- 5 The one thing that is still remaining,
- 6 what is your response to what Mr. Hassell has said,
- 7 Ms. Potterfield?
- 8 MS. POTTERFIELD: I remember from last
- 9 year, and my memory might be faulty, that we went
- 10 through this process with the NRC staff on our
- 11 request last year, and they were able to turn over
- 12 to us some stuff.
- 13 Is that wrong, Mr. Hassell?
- MR. HASSELL: That's not my
- 15 recollection at all. Last year, my recollection
- is you never reached the question of production.
- 17 You only reached the question of whether the
- 18 documents should be preserved. So this is the
- 19 first time you are hearing this position with
- 20 regard to production.
- 21 MS. POTTERFIELD: We are always much
- 22 more interested in what's happened off site than
- 23 on site anyway. I suppose my arswer would be we
- 24 would be willing to wait for this review process
- 25 that Mr. Hassell indicates is necessary and then

to get his documents whenever, whatever he is willing to turn over after that, later than we get the others documents. We are particularly anxious 3 about the off site observances.

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- MR. BRANDENBURG: I don't know if we 5 can help Mr. Glass, but I think with respect to the on site materials that Mr. Hassell referred to, that the licensees are involved in the proprietary 9 review process and I, on behalf of Con Edison, 10 will assist Mr. Hassell and all of the parties in 11 whatever way we can to accelerate the proprietary 12 process to make the on sets documents available 13 that much sooner.
- 14 JUDGE GLEASON: I am sorry, would you 15 summarize that again?
- 16 MR. BRANDENBURG: The burden of Mr. 17 Hassell's remarks earlier is there is a staff 18 report on the on site aspects of the exercise and 19 NRC staff report that is undergoing proprietary 20 review clearance which is a procedure that takes 21 ten days.
 - I just wanted to offer and extend Con Edison's efforts to help accelerate that process by telephone approvals or whatever mechanism we can to accelerate the proprietary review process

- 1 and make these staffs on site assessment available
 2 to the parties that much sooner.
- 3 JUDGE GLEASON: That will be helpful.
- Were we are going to have to do now
- 5 is hear from the New York State Preparedness Group
- and we will have Mr. Louis get in touch with him
- 7 by telephone and ask for a response by telegram,
- 8 hopefully tomorrow, so maybe tomorrow we can have
- 9 some ruling on this.
- 10 So that's all, really, we can do with
- 11 that question at this time.
- 12 There are two other things. We had
- 13 sent a telegram in connection with this
- 14 controversey with GNYCE, we sent out an order by
- 15 telegram yesterday. I assume the people received
- 16 it.
- We need to get some quick resolution
- of this and we don't know how rapidly you are
- 19 planning on doing this additional interrogation,
- 20 but it had better be done in a prompt fashion.
- 21 We also should get back a response
- from you on the preparedness thing as rapidly as
- 23 possible, as to whether you want to respond to
- 24 that or not. We have asked for a response in
- 25 connection with he Parents' response to your

- 1 motion to compel, in essence. We have asked for a
- 2 response.
- 3 The last item is we need to get --
- 4 where is Ms. Potterfield?
- 5 MS. FLEISHER: She went to make a
- 6 phone call. She will be right back.
- JUDGE GLEASON: We need to have a list
- 9 of witnesses from the Intervenors with respect to
- 9 this drill exercise, because we have to schedule
- 10 time on this. We do have some from Rockland
- 11 County witnesses and I don't know whether there is
- 12 going to be any additional witnesses on the part
- 13 of the licensees or not. I would gather not but I
- 14 don't know.
- MR. PIKUS: I don't believe so.
- JUDGE GLEASON: We only have a two-day
- 17 period and we have to allocate time and make some
- 18 decisions. The more we turn around as a board
- 19 here on short notice, why the less time we really
- 20 have to give these things the evaluation we would
- 21 like to give them.
- MR. PIKUS: I don't believe the Power
- 23 Authority will have witnesses but I will have a
- 24 definite answer for you tomorrow.
- 25 MS. FLEISHER: Your Honor, if I may,

- 1 Mr. Bowers asked about Tuesday and if we could
- 2 have him on Tuesday, the 27th, at 4 p.m. I will
- 3 put his name in formally.
- JUDGE GLEASON: Mr. Bowers?
- 5 MS. FLEISHER: He is the ambulance
- 6 coordinator in Rockland County.
- We are having such a bad time getting
- 8 our witnesses over here. I don't know why they
- 9 think it is such a trip. You will, several
- 10 witnesses on our list wouldn't come this far. A
- 11 particular one is the man in charge of the -- the
- 12 chief of the fire chiefs, Mr. Greg Santone. He
- 13 said he would only come if we had an evening
- 14 session.
- Do you expect we could do that on
- 16 Tuesday evening, or not?
- JUDGE GLEASON: We could try it that
- 18 week. Let me take a look at it.
- 19 MS. FLEISHER: That would be a great
- 20 help to us.
- JUDGE GLEASON: Let me get something
- 22 clear, you are talking about witnesses you
- 23 couldn't get to come last week?
- MS. FLEISHER: That's a separate item.
- 25 I am not talking about that.

JUDGE GLEASON: That phase is over 1 with. 2 3 MS. FLEISHER: I am not talking about that. I am talking about the witnesses now post 4 5 drill. 6 JUDGE GLEASON: You have to work that thing out with the Intervenors as far as the number because we have two days to allocate. MR. HASSELL: Let me just raise the 9 10 possibility that it may be that the staff -- well 11 I would assume at some point, depending upon what 12 the NRC inspection report says, the board may very 13 well have an interest in having the NRC staff say 14 something with respect to that. JUDGE GLEASON: We have to see the 15 16 report first. 17 JUDGE GLEASON: Does anyone know if 18 Mr. Blum is scheduled to show up tomorrow? MS. POTTERFIELD: I know he isn't 19 20 scheduled to show up tomorrow. 21 JUDGE GLEASON: All right, we will recess until tomorrow at 9 o'clock, at which time 22 we shall have Mr. Lifton, is that right? 23

MS. POTTERFIELD: Yes. Let me just

say for those parties that don't know it, Dr.

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- 1 Kagen won't be able to appear tomorrow. Dr.
- 2 Lifton will be here, and with the board's
- 3 permission, we would be happy to get a couple of
- 4 other witnesses who we weren't able to fit in
- 5 during our week so that the time can be used most
- 6 productively.
- 7 As you know, Dr. Lifton won't be here
- 8 until 3 o'clock. I don't know how long the staff's
- 9 witnesses will take. We are trying to reach Ms.
- 10 Blattstein, who was also a witness, whom we gave
- 11 notice of last week, and also Dr. Zelnick. We
- 12 will try to make them available if that's
- 13 permissible.
- 14 JUDGE GLEASON: As I have indicated
- 15 before, if there is time available and we have
- 16 them here, all right. If the time is not
- 17 available, we cannot hear them. That's all we can
- 18 do.
- MS. POTTERFIELD: I understand that.
- JUDGE GLEASON: I quess I misspoke
- 21 that Mr. Lifton was to be on the stand tomorrow at
- 22 9 o'clock. So we will start with the staff's
- 23 witnesses.
- MR. HASSELL: Mr. Schwartz and Mr.
- 25 Sears at 9 a.m.

1	JUDGE	GLEAS	SON:	See y	ou :	in th	e mor	ning.
2	(Hear	ing a	rece	ssed	at 4	1:15	p.m.)	
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1	NUCLEAR REGULATORY COMMISSIO) N
2		
3	This is to certify that the	attached proceedings
4	before	
5	THE ATOMIC SAFETY AND	LICENSING BOARD
6	in the matter of: CONSOLIDAT	CED EDISON COMPANY OF
7	NEW YORK (Indian Point Unit 2) -
8	POWER AUTH	ORITY OF THE STATE OF
9	NEW YORK (Indian Point Unit 3)
10	Date of Proceeding: March	30, 1983
11	Docket Number: 50-24	7 SP and 50-286 SP
12	Place of Proceeding: White	Plains, New York
1 3	were held as herein appears,	and that this is the
14	original transcript thereof	for the file of the
15	Commission.	
16		Raymond DeSimone
17		Official Reporter
18		faymerd & Comme
19		Ruth Bennett
20		Official Reporter
21		Ruth Bennett
22		RYTA RONCHER
23		Official Reporter
2.4		Puta Doncher
25		Tyla For Ches